FILED
NOV 9 1956
JOHN T. FEY, Clerk

IN THE

Supreme Court of the United States

OCTOBER TERM, A. D. 1956.

No. 561

AUREX CORPORATION AND WALTER H. HUTH,
Petitioners,

vs.

BELTONE HEARING AID COMPANY,
Respondents.

PETITION FOR CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT.

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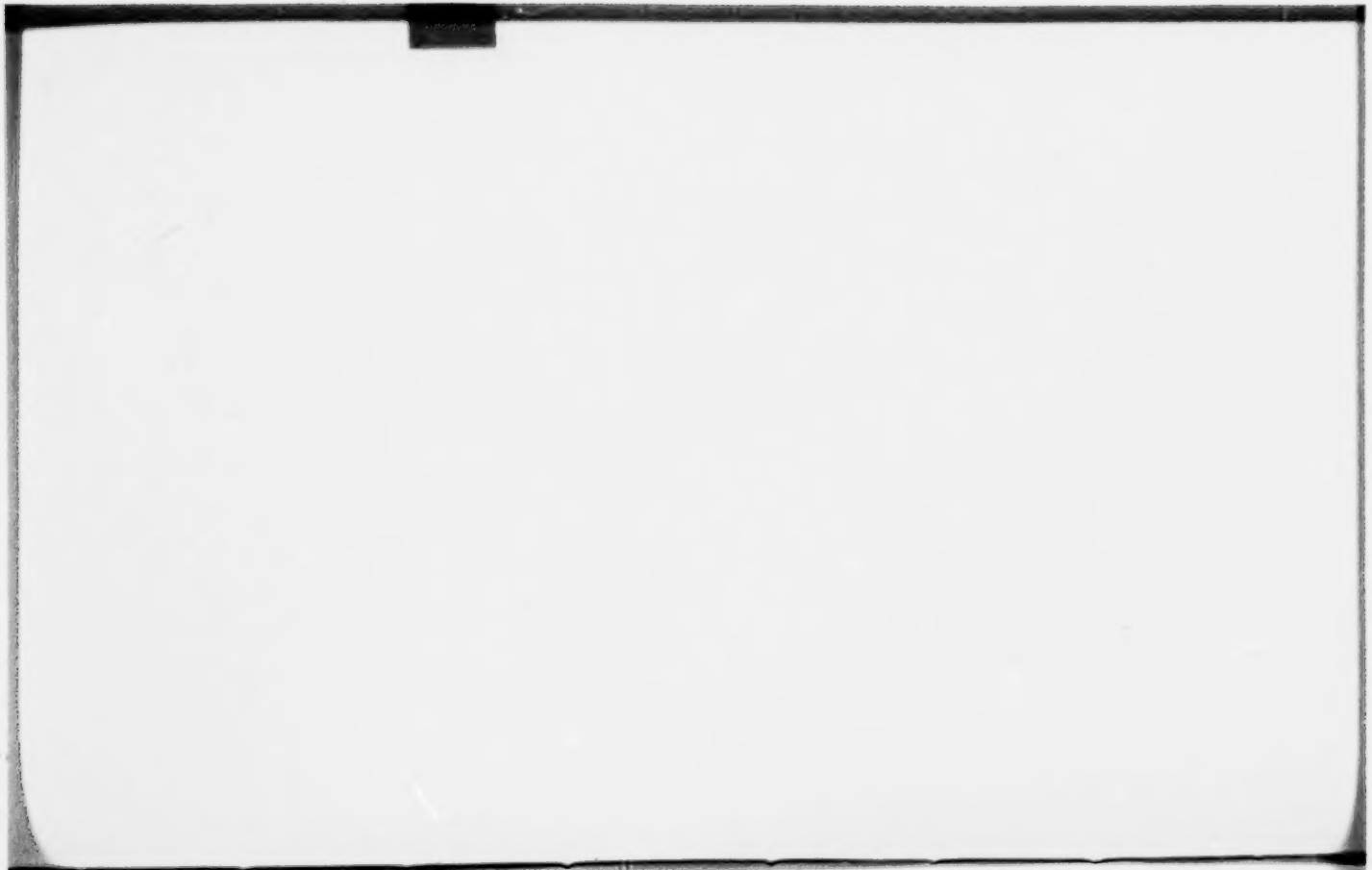

INDEX.

	PAGE
Reference to the Opinions Below	2
Jurisdiction	3
Questions Presented	3
Statement of Facts	4
Reasons for Allowing the Writ	9
Conclusion	15
Appendix—Opinions Below	
I. Judge Schnackenberg	17
II. Judge Duffy, Concurring	26

Citations.

Grover Tank & Mfg. Co., Inc. v. Linda Air Products Co., 339 U. S. 605	10
Hunt v. Armour, 185 F. 2d 722, 880 USPQ 53 (7 C. A., 1950)	10
Sinclair Co. v. Interchemical Corp., 325 U. S. 327	1
Smith v. Snow, 284 U. S. 1, 240 USPQ 26	10

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PETITION FOR CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT.

The United States District Court for the Northern District of Illinois held valid and infringed four claims of petitioners' letters patent, identified in the margin[1] which relate to an improvement in the mounting of microphones in hearing aids. The judgment enjoined future infringements and granted an accounting, which has not been taken.

On appeal to the Court of Appeals for the Seventh Circuit, Judge Schnackenberg found no infringement and did not pass upon the question of validity. Judge Duffy concurred in finding no infringement but, observing that this court's decision in *Sinclair Co.* v. *Interchemical Corp.*, 325 U. S. 327, said,

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1. Patent infringed is No. 2,304,339.
The Claims involved are 1, 2, 15 and 16.

> "It has come to be recognized, however, that of the two questions, validity has the greater public importance (citing cases), and the District Court in this case followed what will usually be the better practice by inquiring fully into the validity of this patent."

said of the instant case,

> "* * * I think the question of validity should have been discussed and decided in the main opinion."

He thereupon explicitly declared the patent valid although not infringed.

Judge Finnegan, dissenting without opinion, would have affirmed the District Court. Petitioner, conceiving that this case presents questions, noted below, of sufficient importance to elicit this Court's writ of certiorari, seeks that writ to review the Court of Appeals for the Seventh Circuit.

REFERENCE TO THE OFFICIAL AND UNOFFICIAL REPORTS OF THE OPINIONS DELIVERED IN THE COURTS BELOW.

The opinion of Judge Schnackenberg ..... Fed. 2d ..... (not yet officially reported), is reprinted in full as Appendix I. The deferred concurring opinion of Judge Duffy, of September 11, 1956, ... Fed. 2d ..... (not yet officially reported) is reprinted in full as Appendix II.

As we have noted, Judge Finnegan wrote no dissenting opinion. His memorandum was "I would affirm the judgment of the District Court."

The full decision of the Court of Appeals is reported by ..... U. S. P. Q. .....

STATEMENT OF THE GROUNDS ON WHICH THE JURISDICTION OF THIS COURT IS INVOKED.

Petitioner's petition for rehearing, duly filed, was denied on October 3, 1956, less than ninety days before the date upon which this petition will be presented.

This Court's jurisdiction is invoked under Section 1254 of the Federal Judicial Code (U. S. C. A., Title 28, Sec. 1254, 62 Stat. 928).

THE QUESTIONS PRESENTED FOR REVIEW.

1. THE DISTRICT COURT MADE ELABORATE FINDINGS OF FACT UPON VARIOUS QUESTIONS SUBSIDIARY TO THE ULTIMATE ISSUES OF VALIDITY AND INFRINGEMENT AS WELL AS UPON THOSE ISSUES THEMSELVES. THE COURT OF APPEALS DID NOT DISCUSS OR CRITICIZE THESE FINDINGS. DOES THE APPELLATE COURT'S OPINION EVINCE A MISCONCEPTION OF THE IMPORTANCE IN PATENT CASES OF THIS COURT'S RULE 52(a), WHICH PROVIDES THAT "FINDINGS OF FACT SHALL NOT BE SET ASIDE UNLESS CLEARLY ERRONEOUS," OF SUCH CONSEQUENCE, NOT ONLY IN THE INSTANT CASE BUT IN OTHER PATENT CASES, AS TO EVOKE *CERTIORARI*?

2. DOES THE OPINION OF THE COURT OF APPEALS IN THIS CASE SO TREAT AS *CRITERIA* OF LAW THOSE CONSIDERATIONS THAT SHOULD PROPERLY BE REGARDED AS APPRAISALS OF FACTS AS TO CALL FOR THIS COURT'S WRIT OF *CERTIORARI*?

3. THE DISTRICT COURT DECLINED TO ADJUDICATE RESPONDENT'S COUNTERCLAIM THAT CERTAIN OTHER MODELS OF ITS HEARING AIDS DID NOT INFRINGE PETITIONERS' PATENT. THE COURT OF APPEALS ADJUDICATED THIS COUNTERCLAIM ADVERSELY TO PETITIONERS WITHOUT ANY FINDINGS OF FACT. DOES THIS ACTION OF THE COURT OF APPEALS CALL FOR *CERTIORARI*?

4. JUDGE SCHNACKENBERG DECLINED TO REACH THE QUESTION OF VALIDITY. JUDGE DUFFY CRITICIZED JUDGE SCHNACKENBERG'S OPINION IN THE LIGHT OF *SINCLAIR CO.* v. *INTERCHEMICAL CORP.*, 325 U. S. 327, FOR

NOT REACHING THE ISSUE OF VALIDITY AND DECLARED PETITIONERS' CLAIMS IN SUIT TO BE VALID ALTHOUGH NOT INFRINGED. JUDGE FINNEGAN NECESSARILY FOUND VALIDITY AS WELL AS INFRINGEMENT BY VOTING FOR AFFIRMANCE. DOES THIS CASE AFFORD AN EXCEPTIONALLY APPROPRIATE OCCASION FOR A PRONOUNCEMENT BY THIS COURT AS TO THE BETTER APPELLATE PRACTICE IN DEALING WITH QUESTIONS OF VALIDITY OF A PATENT WHERE THE MAJORITY OF THE REVIEWING COURT FINDS NO INFRINGEMENT?

STATEMENT OF THE FACTS.

The Object of the Invention Claimed in Petitioners' Patent in the State of the Hearing Aid Art at the Time of the Invention Conception.

Hearing aids, aside from old-fashioned ear trumpets, old-fashioned stethescopes and other instruments that are merely passive canals for trains of sound waves in the air, are electronic devices of such structure and function that sound waves impinging upon the diaphragm of a microphone are transformed into fluctuating electrical impulses in an electrical circuit. These impulses are amplified by vacuum tubes or transistors and the amplified and modulated electrical impulses are then reconverted into mechanical impulses of a diaphragm in the ear piece and transmitted in the form of sound waves that are audible to persons whose defects in hearing are of a type susceptible to this kind of electro-mechanical assistance.

Unfortunately, partially deafened persons and the hearing aid industry have long been beset by the fact that the friction of hearing aid cases and cords in moving contact with the wearer's clothing generate obnoxious sounds that, like other sounds with which they compete, are amplified by the hearing aid.

The inventor, petitioners' assignor, one Cubert, disclosed (for a moment we forbear advertance to Cubert's claims)

an ordinary crystal microphone, having an annular aluminum body, mounted so as to be *freely movable bodily* by means of a sheet of silk extended across an opening in a chassis or frame mounted within the hearing aid casing. The microphone was disclosed as cemented to the sheet of silk *or other flexible material.*

Further disclosing his claimed invention, Cubert said (Tr. 8):

> "In other words, the microphone has a floating support and is insulated against structural vibration of the instrument as a whole, so that the crystal can only be energized or agitated by the sound vibrations coming in from the atmosphere through the louvre openings 8 in the front cover of the casing, these openings being opposite the front of the microphone."

Claims 1, 2, 15 and 16, the claims involved in this case, are set forth in full in the margin.[2] Crucial terms in these

2. Claims 1, 2, 15, 16:

1. In a portable microphone instrument to be worn on the person, as a part of a hearing aid apparatus, having an outside casing therefor, a microphone enclosed thereby and freely movable bodily therein and insulated against the communication thereto of vibrations set up in the said outside casing by scratching or contact or friction thereon.

2. A structure as specified in claim 1, said microphone having a mounting or support by material having a low degree of vibration communicating capacity.

15. In a portable microphone instrument to be worn on the person, as a part of a hearing aid apparatus, having an outside casing therefor, a microphone enclosed thereby and freely movable bodily therein and insulated against the communication thereto of vibrations set up in the said outside casing, from within or by scratching or contact or friction thereon, or by attachments thereto, said microphone having a casing and a suitably supported sheet of flexible material fastened to the casing of the microphone and mounted on the outside casing.

16. In an amplifier hearing aid: a casing of hard material, of a size and shape that can be easily and conveniently carried in the pocket of a coat or under the clothing; a microphone housed in said casing; and supporting means including sheet elements of flexible material carrying said microphone in a relatively movable

claims, as we have described above, are those aspects of respondent's hearing aids with respect to which the Trial Court found and the Court of Appeals refused to find infringement.

Here let it be briefly noted that both petitioners' disclosure (again we forbear for the moment advertance to the claims) and respondent's instruments alike embody microphones mounted upon flexible, unstressed supports, which effectively minimize the "friction sounds" against which Cubert's invention and respondent's flexible, unstressed mountings are directed.

The District Court, after extensive hearings made, *inter alia*, the following Findings of Fact:

> "25. Plaintiff's demonstration in open court of various mounting materials and methods by the witness Bartlett, who has a substantial hearing deficiency, shows that only those mountings in which the microphone is freely movable bodily on a material having a low vibration communicating capacity effectively prevents the transmission to the microphone of molecularly conductive sound vibrations developed in the casing or receiver cord.
>
> "26. The microphone mounting of foam rubber sheet material in the accused device is the equivalent of the specific embodiment of the invention shown in the patent in suit.
>
> "27. Defendant's device responds to the terms of the claims in suit to perform in substantially the same manner and to give substantially the same result as the patent in suit within the intent and meaning of the claims.
>
> "28. Claims 1, 2, 15 and 16 of the patent in suit are infringed by the accused device.
>
> "29. The concept and practice of the invention as taught by the patent in suit and as found in the ac-

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position within said casing so as to prevent vibrations imparted to the outside casing by scratching or the like from reaching the microphone.

cused device is not found in any of the prior art relied upon by the defendant.

"30. The prior patents and publications cited by defendant and introduced in evidence, considered singly and collectively, fail to teach the invention taught and claimed in the patent in suit."

We do not ask the Court to weigh the evidence underlying these findings because the Court of Appeals did not weigh that evidence but thus summarily disposed of the question of infringement, in spite of the Trial Court's findings:

"Cubert repeatedly refers to the diaphragm of a thin flexible sheet which is stretched. On the other hand, the district court found that in the accused device 'a member of foam rubber is glued on one side to the inner surface of the hearing aid casing and on the other side to the microphone. The microphone is thus suspended by the foam rubber in an air space with clearance all the way around and *without any stress* upon the mounting member other than the slight weight of the microphone itself.' (Emphasis supplied.) It further found that microphones 'mounted upon unstressed foam rubber are freely movable bodily and isolated from the transmission thereto, through the mounting, of molecularly conducted sound vibrations' and also that the 'microphone in the accused device is freely movable bodily and insulated against conduction thereto of molecular vibrations set up in the outside casing and receiver cord of the hearing aid, as by the rubbing of clothing thereon.' Whatever may be the extent of the movability of the microphone of either the plaintiffs' or the accused device, the fact is that the microphone in the accused device is permitted to move only because of the *conventional* use of cushions. Defendant's result is attained without using the diaphragm method patented by Cubert. The latter's invention is directed only to a stretched sheet diaphragm used to solve his problem."

The Court of Appeals further said:

> "Cushions cannot vibrate diaphragmatically. Cushions are relatively thick (in contrast to a 'thin, flexible sheet, which is stretched flat'), and the thicker they are the more effective they become as non-conductors of molecularly conducted sound vibrations. Whereas Cubert devised the sheet diaphragm construction to locate a large weighted microphone in a chassis opening with small side, top, and bottom clearances, the accused device uses a small microphone with no added weight in a small chassis where side, top and bottom clearances are no problem, and without any chassis opening. Defendant simply glues the microphone to the cushion, which is itself fastened directly to the case. Cubert's patent, which teaches the use of a stretched diaphragm, is not infringed by the use of a conventional cushion, found by the district court to be unstressed except for the slight weight of the microphone itself. *Permutit Co.* v. *Graver Corp.*, 284 U. S. 52, 57; *Burroughs Adding Machine Co.* v. *Felt & Tarrant Mfg. Co.*, 243 Fed. 861, 870; *The Texas Company* v. *Globe Oil and Refining Co.*, 225 F. 2d 725, 733, 737."

There is nothing in the record of this case to support the arbitrary conclusion of the Court of Appeals that respondent's microphone suspension means is merely a "conventional cushion" and none of the claims in issue is limited to a "stretched diaphragm."

The District Court refused to adjudicate a counterclaim by respondents that other models of respondent's device also involved petitioners' patent. The Court of Appeals remanded for adjudication of this counterclaim adverse to petitioners upon this issue and not for further findings of fact and not for reconsideration of the evidence with respect to these other models.

Note should also be made that Judge Schnackenberg's opinion wholly ignored the fact that Cubert's patent was

granted to Cubert after a three-party interference in the Patent Office, involving a microphone mount substantially the same as that used in respondent's devices, had ultimated in the Commissioner's conclusion that Cubert's invention was prior to the other competing parties. Therefore the Patent Office had before it the matter of the scope of the Cubert application and claims with respect to structural equivalents, as well as a comprehensive survey by leaders in the industry of the novelty of Cubert's claims. The patent was not granted as a result of merely an *ex parte* prosecution as is usually the case.

Western Electric Company, Zenith Radio Corporation and others have taken licenses under petitioners' patent.

REASONS RELIED ON FOR ALLOWANCE OF THE WRIT.

I.

The Court of Appeals Has So Ignored the Import of Rule 52(a) of the Federal Rules of Civil Procedure, Which Provides That a Trial Court's Findings of Fact Should Not Be Set Aside Unless "Clearly Erroneous," as to Warrant Certiorari.

The question in this case, as appears from contrasting the Trial Court's Findings of Fact Nos. 25, 26, 27, 28, 29 and 30 set forth in the *Statement of Facts, infra,* with the holding of the Court of Appeals, is whether the microphone supporting means embodied in respondent's hearing aids is the "equivalent" of the flexible suspensory mounting disclosed and claimed by Cubert in claims 1, 2, 15 and 16 (*Statement of the Case, infra*).

This question, we submit, was one of fact under this Court's Rule 52 (a).

"A finding of equivalence" this Court said in *Graver Tank & Mfg. Co., Inc.* v. *Linde Air Products Co.*, 339 U. S. 605, "is a determination of fact."

The Court of Appeals read Cubert's disclosures and claims as insisting that, as the price of a patent from the Patent Office under what the Court of Appeals found to be the "file wrapper estoppel" in Cubert's application, in the suspensory mounting of the microphone the "diaphragm should be stretched flat."

The majority of the court below erroneously ignored the obvious fact that the accused mounting of foam rubber sheet material is also "stretched flat." It has no wrinkles or buckles in it. The foam rubber sheet material is stretched flat in its use just the same as the cloth of the embodiment of the invention shown in the patent in suit. The term "stretched" is neither used nor inferred in any of the claims in suit and its absence is significant in view of the fact that *it is included* specifically in other claims, Claims 3 and 8, which are not in suit.

A limitation not present in one claim must not be imputed thereto when the specific limitation appears in other claims of the patent. *Smith* v. *Snow*, 284 U. S. 1, 24 U. S. P. Q. 26.

Each claim of a patent constitutes a separate monopoly. *Hunt* v. *Armour*, 185 F. 2d 722, 88 U. S. P. Q. 53 (7 C. A., 1950).

We do not ask this Court to canvass the record and appraise for itself the voluminous evidence in this case.

We do ask this Court to recognize by *certiorari* the existence of the substantial question whether the Court of Appeals, in arbitrarily substituting its judgment for that of the Trial Court as to whether respondent's supporting means is the "equivalent" of the suspensory mountings disclosed and claimed by Cubert, departed from the import of Rule 52 (a) in patent cases.

II.

If the Court of Appeals Was Correct in Treating the Question of Equivalents in This Case as One of Law, It So Far Departed from the Norms of Patent Law as to Call for Certiorari.

This case affords this Court an opportunity to make a pronouncement, firmly founded upon the facts of the instant case and yet of general import in the domain of patent law, as to the modern reach of the doctrine of equivalents where the question is one of law and not of fact.

In the instant case, the admitted objective facts were that Cubert disclosed and claimed and respondent embodied in the accused devices flexible supports for microphones in hearing aids, to the end that "friction sounds" should be minimized.

Respondent contends that Cubert's invention was not novel. But the District Court and two judges of the Court of Appeals have rejected that contention and Judge Schnackenberg has refused to pass upon the matter.

Since respondent is confronted at this juncture with the adjudication of validity of the Cubert patent the only question is whether Cubert's claims 1, 2, 15 and 16 read upon the supporting means used by respondent for its microphones.

The District Court found that

> "only those mountings in which the microphone is freely movable bodily on a material having a low vibration communicating capacity"

are effective to prevent conduction of friction sounds and that respondent's device

> "responds to the terms of the claims in suit to per-

> form *in substantially the same manner* and to give substantially the same result as the patent in suit''

and that according to the demonstration of a witness who ''has a substantial hearing deficiency'' it is clear that petitioners' and respondent's mountings alike achieve this result by similar means.

The Court of Appeals does not challenge these findings. Presumably, therefore, it accepts them but holds as a matter of law that respondent's device does not embody the equivalent of Cubert's invention.

We submit that if the Court of Appeals properly treated this questions as one of law at all, then it improperly resolved that question.

The question whether, it being granted or assumed as a matter of fact that an accused device accomplishes the same results by the same means as those disclosed and claimed in a valid patent, there is nevertheless no infringement because the claims do not specify the infringing feature of the accused device, is an important one of Federal patent law.

This question is of course not new in the abstract. It is implicit in almost every case in which the question of equivalents is litigated. But the opinion of the Court of Appeals in this case implies, not only as to petitioners' patent and not only as to hearing aids but as to patents in general, so narrow a reading of claims as to constitute a limitation upon patents that is detrimental to the public interest generally and to the encouragement of invention in particular.

We submit that this limitation does not accord with the principles of the exposition of patents that either now prevail or, if they do not now prevail, should prevail by this Court's holding in cases such as the present one.

III.

The Court of Appeals Has Adjudicated Respondent's Counterclaim as to Other Hearing Aid Models Adversely to Petitioners Without Any Evidence or Finding of Fact by the District Court.

Respondent sought and petitioners successfully resisted in the appellate court upon an adjudication as to infringement *vel non* of certain other models of respondent's hearing aids. The Court of Appeals, however, has peremptorily remanded the cause to the District Court not for litigation or resolution of these issues but for categorical denial thereof.

We submit that this action of the Court of Appeals calls for *certiorari*.

IV.

The Dissidence by Judges Schnackenberg and Duffy as to Whether the Question of Validity as Well as the Question of Infringement Should Be Decided in This Case Should Evoke Certiorari.

In Judge Duffy's concurring opinion, Judge Duffy said:

> "In *Sinclair Co.* v. *Interchemical Corp.*, 325 U. S. 327, the Court said, page 330: 'There has been a tendency among the lower courts in infringement suits to dispose of them where possible on the ground of non-infringement without going into the question of validity of the patent (Citing cases). It has come to be recognized, however, that of the two questions, validity has the greater public importance (citing case), and the District Court in this case followed what will usually be the better practice by inquiring fully into the validity of this patent.'
>
> "In the case at bar the District Court upheld the validity of the claims in suit. That question was

squarely raised on this appeal. I recognize there is some difference of opinion in the circuits as to the interpretation to be given to the admonition of the Supreme Court in the *Sinclair* case. The Sixth Circuit interprets it as a direction always to decide the issue of validity. *Pennington Engineering Co.* v. *Spicer Mfg. Co.*, 165 F. 2d 59, 61.

"In *Powder Power Tool Corp.* v. *Powder Actuated Tool Corporation*, 230 F. 2d 409, 415, this Court said: 'In spite of our determination of noninfringement we follow the "better practice" and turn now to the question of the validity of the claims.'

"There is, of course, some justification for other courts to hold that where there is noninfringement and the claims of the patent are not clearly invalid on their face, that it is, in effect, deciding a moot question to consider the question of validity. See: *Harries* v. *Air King Products Co.*, 183 F. 2d 158, 162; *Patent Scaffolding Co.* v. *Up-Right, Inc.*, 194 F. 2d 457."

While this Court will not usually grant *certiorari* merely to reform opinions, where two judges in the same circuit and on the same set of facts differ as to whether the validity as well as the infringement of claims in suits should be decided, the case provides this Court with an unusual opportunity to light a path for the Court of Appeals for the Seventh Circuit and other Courts of Appeals to follow in patent cases.

Of course, if this Court determines that petitioners' case is without substantial merit in any event, it will not and should not grant *certiorari* merely to instruct courts of appeal as to how they should fashion their decisions.

But if this Court is convinced that the case otherwise possesses merit, the opportunity to enlighten lower courts upon the question debated by Judges Schnackenberg and Duffy should incline this Court to grant *certiorari* in this case.

CONCLUSION.

For the reasons set forth in this petition, we respectfully submit that *certiorari* should be granted.

Respectfully submitted,

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APPENDIX I.

No. 11707.

AUREX CORPORATION, a corporation, and WALTER H. HUTH,
Plaintiffs,

v.

BELTONE HEARING AID COMPANY, a corporation
Defendant.

Before DUFFY, *Chief Judge,* and FINNEGAN and SCHNACKENBERG, *Circuit Judges.*

SCHNACKENBERG, *Circuit Judge.* Defendant appeals from a judgment entered after a hearing by the district court, adjudging claims 1, 2, 15 and 16 of Cubert letters patent No. 2,304,339, owned by plaintiffs, valid and infringed by defendant, decreeing that plaintiffs recover from defendant damages resulting from said infringement and costs and expenses, and that defendant be enjoined from further infringement.

Plaintiffs' counsel state that the invention covered by the patent relates to an improved mounting of a microphone in a wearable hearing aid. They say that Cubert's invention relates to undesirable noises produced by physical contact of clothing, fingers or other objects with the cord, casing, or some other portion of the hearing aid apparatus, and that it practically eliminates "so-called clothing noises for persons having hearing deficiencies". They construe the patent as showing "that the [rear of the] microphone is cemented to the center of a sheet of silk or other flexible material which is stretched flat across

an opening in a frame so that the microphone has no tight or rigid connection with the frame through which molecularly conducted noises might pass". They also say that "Cubert, working counter-current to the usual practice, achieved the result which had long evaded the prior workers in the art", that he found "that the microphone should not be packed tightly in any insulating or cushioning material" and that he "informed the art" that the microphone "should not be held tightly but should be supported in a free floating manner so that it would be freely movable bodily within the hearing aid casing".

Defendant's counsel contend that before any of the Cubert activity here in question it was known that microphones should be floatingly mounted to eliminate extraneous sounds. They point to uncontradicted evidence that springs, sponge rubber rings, felt pads or rings and gum rubber type elements were used for this purpose. They say that the accused device does not infringe "because it uses unstressed foam rubber cushions which are the antithesis of the only thing shown in the Cubert patent—the stretched sheet diaphragm."

Cubert's patent application was filed April 19, 1940 and the patent was issued December 8, 1942. Prior to April 19, 1940 Cubert, then an engineer for plaintiff Aurex, designed a hearing aid, in which a microphone was weighted by a lead disk affixed on its rear side. Our inspection of the chassis and the casing of this construction shows that the combined lead disk and microphone required a circular opening in the chassis to receive the microphone. Cubert devised a construction to hold the microphone in this opening. He accomplished this by stretching a sheet of silk across the opening in the form of a diaphragm and cemented the sheet to the chassis at the edges of the opening. He then cemented the rear of the microphone to the sheet centered in relation to the

opening. He also provided two foam rubber pads, bumpers, cushions or buttons, located on opposite sides on the front of and cemented to the microphone within its outer perimeter, and also a similar structure, round in shape, located and cemented to the sheet so as to place it between the sheet "where the latter was cemented to the back of the microphone and the back of the casing". These pads, by whatever name described, were admittedly conventional and were for the purpose of preventing shock.

These cushions are not mentioned in the written description of Cubert, although plaintiffs' witness Drumm testified in the district court that the round pad last above mentioned is shown in figure 4 of the drawings submitted with the application. However, there is no contention that it is in any way described or identified by any legend on the drawing.

Cubert's claims now in suit are:

1. In a portable microphone instrument to be worn on the person, as a part of a hearing aid apparatus, having an outside casing therefor, a microphone enclosed thereby and freely movable bodily therein and insulated against the communication thereto of vibrations set up in the said outside casing by scratching or contact or friction thereon.

2. A structure as specified in claim 1, said microphone having a mounting or support by material having a low degree of vibration-communicating capacity.

15. In a portable microphone instrument to be worn on the person, as a part of a hearing aid apparatus, having an outside casing therefor, a microphone enclosed thereby and freely movable bodily therein and insulated against the communication thereto of vibrations set up in the said outside casing, from within or by scratching or contact or friction thereon, or by attachments thereto, said microphone having a casing and a suitably supported sheet of

flexible material fastened to the casing of the microphone and mounted on the outside casing.

16. In an amplifier hearing aid: a casing of hard material, of a size and shape that can be easily and conveniently carried in the pocket of a coat or under the clothing; a microphone housed in said casing; and supporting means including sheet elements of flexible material carrying said microphone in a relatively movable position within said casing so as to prevent vibrations imparted to the outside casing by scratching or the like from reaching the microphone.

The patent office examiner rejected claims 1 and 2, *inter alia,* as fully met by Franzblau[1] or Williams,[2] whereupon Cubert requested reconsideration because these claims called for a microphone instrument that "has freedom of movement within the outside casing, and this is not true of either one of the references cited."[3]

In Cubert's said request for reconsideration, in speaking of the silk cloth, he stated that "It can only vibrate mechanically in the manner of a diaphragm, but that is what gives the microphone freedom of motion within the outside casing."

However, Cubert amended his specifications by adding the language which is quoted in italics in the footnote below,[4] wherein are set forth excerpts from the specifications as amended.

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1. 2,182,856.

2. 1,311,430.

3. In plaintiffs' brief they urge that the silk, as a sheet of flexible material of a low degree of vibration communicating capacity, thus suspended the microphone with clearance all around for free movement bodily relative to the casing.

4. "The invention resides in the method of mounting the microphone proper on the said frame or chassis, and in the weighting of the microphone over and above what is commonly or ordinarily done, in order to prevent vibrations, set up in the outside casing,

In his specifications, as amended, Cubert says that "a sheet of silk is stretched on the back of the chassis or frame" and through the opening in the frame the back of the microphone extends and is cemented to this "thin flexible sheet". It is specified that this sheet of silk is "stretched on the back of the chassis or frame".

It is undisputed that prior to the Cubert patent it was known that extraneous sounds in microphones could be eliminated or diminished by a floating mounting.

In the accused device the microphone is located in the fore and aft direction by a pair of foam rubber cushions. The front cushion is in the form of a ring which, on one side thereof, is attached to the front edge of the microphone and, on the other side thereof, is attached to the inside of the front casing and around an open grill therein. The rear cushion is in the form of a smaller pad fastened only to the microphone. The district court found that the microphone is suspended by the foam rubber and without any stress upon the mounting member other than the slight weight of the microphone itself.

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from traveling through the said frame or chassis to the microphone, thereby creating a disturbance in the receiving instrument worn in the ear, or back of the ear, if bone conduction is employed. * * *

"* * * to prevent such disturbance and annoyance, an ordinary crystal microphone having an annular aluminum body 5, of light material, may have a lead back 6 of the requisite weight, thereby to give the microphone enough inertia for the desired purpose, and in addition, lead is not a transmitter of molecular vibrations, or of sound vibrations. In addition, a sheet of silk 7 is stretched on the back of the chassis or frame 1, and the said lead back 6 is cemented to the said sheet of silk or other flexible material. In this way, of course, the microphone proper is insulated against any vibrations that might be set up in the outside casing and that might be communicated therefrom to the said chassis or frame 1, and from the latter to the casing of the microphone, and then to the crystal inside. * * *

"*It will be seen that the plate* 1, *which in effect forms a frame, has an opening* 9 *through which the back of the microphone* 2 *extends and is cemented to the thin flexible sheet* 1, *which is stretched flat on said frame.*" (Italics supplied.)

Defendant achieved its result by floating a microphone by the use of conventional cushions. It did not resort to a diaphragm. It did not use a thin sheet of silk or, in fact, a sheet of any material.

Cubert repeatedly refers to the diaphragm as a thin flexible sheet which is stretched. On the other hand, the district court found that in the accused device "a member of foam rubber is glued on one side to the inner surface of the hearing aid casing and on the other side to the microphone. The microphone is thus suspended by the foam rubber in an air space with clearance all the way around and *without any stress* upon the mounting member other than the slight weight of the microphone itself." (Emphasis supplied.) It further found that microphones "mounted upon unstressed foam rubber are freely movable bodily and isolated from the transmission thereto, through the mounting, of molecularly conducted sound vibrations" and also that the "microphone in the accused device is freely movable bodily and insulated against conduction thereto of molecular vibrations set up in the outside casing and receiver cord of the hearing aid, as by the rubbing of clothing thereon." Whatever may be the extent of the movability of the microphone of either the plaintiffs' or the accused device, the fact is that the microphone in the accused device is permitted to move only because of the *conventional* use of cushions. Defendant's result is attained without using the diaphragm method patented by Cubert. The latter's invention is directed only to a stretched sheet diaphragm used to solve his problem. Cushions cannot vibrate diaphragmatically. Cushions are relatively thick (in contrast to a "thin flexible sheet, which is stretched flat"), and the thicker they are the more effective they become as non-conductors of molecularly conducted sound vibrations. Whereas Cubert devised the sheet diaphragm construction to locate a large weighted micro-

phone in a chassis opening with small side, top, and bottom clearances, the accused device uses a small microphone with no added weight in a small chassis where side, top and bottom clearances are no problem, and without any chassis opening. Defendant simply glues the microphone to the cushion, which is itself fastened directly to the case. Cubert's patent, which teaches the use of a stretched diaphragm, is not infringed by the use of a conventional cushion, found by the district court to be unstressed except for the slight weight of the microphone itself. *Permutit Co.* v. *Graver Corp.*, 284 U.S. 52, 57; *Burroughs Adding Machine Co.* v. *Felt & Tarrant Mfg. Co.*, 243 Fed. 861, 870; *The Texas Company* v. *Globe Oil and Refining Co.*, 225 F. 2d 725, 733, 737.

Cubert placed his emphasis upon the use of a "stretched" support, and a "thin flexible sheet" which can "only vibrate mechanically in the manner of a diaphragm". Surely this cannot encompass a microphone "mounted upon unstressed foam rubber", or a microphone "* * * suspended by the foam rubber * * * without any stress upon the mounting member other than the slight weight of the microphone itself."

We conclude that defendant has not infringed the Cubert patent, as alleged in plaintiffs' complaint. Therefore, the judgment of the district court is reversed.

The district court did not adjudicate upon a counterclaim filed by defendant, praying *inter alia* for a judgment that the claims in suit are not infringed by any hearing aids manufactured by defendant. On that contention, *inter alia*, plaintiffs joined issue on the counterclaim by filing an answer thereto, but they offered no evidence with respect to any of defendant's models other than the accused device. Defendant introduced evidence in support of its counterclaim, showing that hearing aids known as defend-

ant's exhibits 1 to 9 inclusive[5] and defendant's exhibit 12[6] each involve a mounting of a microphone which in principle is the same as the mounting involved in the accused device. Furthermore, interrogatory No. 23 submitted by defendant read:

> "Do Plaintiffs charge any of the following hearing aids manufactured by Plaintiff as infringements of Cubert Letters Patent No. 2,304,339 and, if so, state which claims are alleged to be infringed.
>
> a. TR
> b. Lyric Transistor
> c. Mono-Pac
> d. Rhapsody
> e. Concerto
> f. Model H
> g. Symphonette
> h. Melody
> i. Harmony
> j. Lyric."

Plaintiffs answered that said hearing aids "all appear to embody the invention of Cubert Letters Patent No. 2,304,339 as defined in Claims 1, 2, 15 and 16 thereof". The hearing aids described in interrogatory No. 23 included defendant's exhibits 1 to 9 inclusive. It appears that defendant's exhibit 10 for identification[7] is the hearing aid referred to as Concerto in interrogatory No. 23. Inasmuch as defendant's attempts were abortive when it tried to establish by references to a chart (sometimes referred to as "defendant's exhibit 20" but not received in evidence) that the Concerto model involved a microphone mounting similar to that involved in the accused device, we find that on the record before us defendant is not entitled to any relief on its counterclaim as to that model.

---

5. Defendant's exhibit 8 appears to be the same model as plaintiffs' exhibit 9.

6. Known as Allegro.

7. It was not received in evidence.

Our views in reference to the accused device, (which is known in the record as plaintiffs' exhibit 9, and also as defendant's exhibit 8, and a part of which is reproduced in a drawing known as plaintiffs' exhibit 14) of course apply to the hearing aids actually introduced in evidence by defendant in support of its counterclaim.[8] They do not infringe the claims of Cubert in issue in this case. As to those hearing aids, it follows that the district court erred in not entering judgment of noninfringement on the counterclaim. Accordingly, this case is remanded to the district court for that purpose.

REVERSED AND REMANDED WITH INSTRUCTIONS.

FINNEGAN, *Circuit Judge, Dissenting.* I would affirm the judgment of the District Court.

8. Defendant's exhibits 1 to 9 inclusive and defendant's exhibit 12.

APPENDIX II.

No. 11707.

AUREX CORPORATION and WALTER H. HUTH,
Plaintiffs-Appellees,

v.

BELTONE HEARING AID COMPANY,
Defendant-Appellant.

DUFFY, *Chief Judge,* concurring.

As I agree that infringement of the claims in suit was not established, I concur that the cause must be reversed and remanded. However, I think we should have discussed and decided the question of the validity of the claims in suit.

In *Sinclair Co.* v. *Interchemical Corp.*, 325 U. S. 327 the Court said, page 330: "There has been a tendency among the lower courts in infringement suits to dispose of them where possible on the ground of non-infringement without going into the question of validity of the patent (Citing cases). It has come to be recognized, however, that of the two questions, validity has the greater public importance (citing case), and the District Court in this case followed what will usually be the better practice by inquiring fully into the validity of this patent."

In the case at bar the District Court upheld the validity of the claims in suit. That question was squarely raised on this appeal. I recognize there is some difference of opinion in the circuits as to the interpretation to be given

to the admonition of the Supreme Court in the *Sinclair* case. The Sixth Circuit interprets it as a direction always to decide the issue of validity. *Pennington Engineering Co.* v. *Spicer Mfg. Co.*, 165 F. 2d 59, 61.

In *Powder Power Tool Corp.* v. *Powder Actuated Tool Corporation*, 230 F. 2d 409, 415, this Court said: "In spite of our determination of non-infringement we follow the 'better practice' and turn now to the question of the validity of the claims."

There is, of course, some justification for other courts to hold that where there is non-infringement and the claims of the patent are not clearly invalid on their face, that it is, in effect, deciding a moot question to consider the question of validity. See *Harries* v. *Air King Products Co.*, 183 F. 2d 158, 162; *Patent Scaffolding Co.* v. *Up-Right, Inc.*, 194 F. 2d 457.

In the case at bar we have the situation where one judge, in dissenting, states that he would affirm the judgment of the District Court. That necessarily means that he thinks the claims in suit are valid. I likewise am of the opinion that the claims in suit are valid. Under such circumstances I think the question of validity should have been discussed and decided in the main opinion.

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JOHN T. FEY, Clerk

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IN THE

Supreme Court of the United States

OCTOBER TERM, A. D. 1956

AUREX CORPORATION and WALTER H. HUTH,
Petitioners,

vs.

BELTONE HEARING AID COMPANY,
Respondent.

BRIEF IN OPPOSITION TO PETITION FOR CERTIORARI.

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November 16, 1956

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IN THE

Supreme Court of the United States

OCTOBER TERM, A. D. 1956

AUREX CORPORATION and WALTER H. HUTH,
Petitioners,

vs.

BELTONE HEARING AID COMPANY,
Respondent.

BRIEF IN OPPOSITION TO PETITION FOR CERTIORARI.

The Cubert patent in suit relates to a support for the microphone in a hearing aid. The only construction shown in the patent consists of a flexible sheet of silk which is "stretched flat" across an opening in a frame to form a diaphragm to which the microphone is secured (R. 7-8). In the Beltone construction the microphone is supported by a foam rubber cushion, glued on one side to the microphone and on the other side to the hearing aid housing (R. 561). The court below—considering only the admitted facts and the content of the patent—concluded that the patent was not infringed. That decision is based on settled principles of patent law and judicial review.

In the court below Petitioners sought to find an equivalence between the Beltone cushion and the stretched sheet diaphragm on the ground that the cushion is not under substantial stress (Finding 21, R. 561). The Court of Appeals rejected Petitioners' contentions because the Cubert patent places major emphasis upon the use of a "stretched" sheet diaphragm (the opposite of an unstressed cushion); the patent nowhere refers to cushions of any kind; and the Petitioners had admitted that cushions were "conventional" in microphone supports.

This is the only suit that has been filed since the Cubert patent issued 14 years ago. The patent expires in less than three years. No notice of patent infringement has been given to any manufacturer other than Beltone over the past eight years (R. 555).

There has been no departure in this case from accepted standards of judicial review or the patent law. Upon the basis of the admitted facts and the patent document the court below concluded that the unstressed foam rubber cushion was not within the scope of the Cubert patent—which shows only a stretched sheet diaphragm. Such decision is in complete accord with the numerous rulings of this Court overturning findings of patent infringement and validity where they depart from the undisputable facts and the patent document itself. See, *e.g. Great A. and P. Tea Co.* v. *Supermarket Equip. Co.*, 350 U.S. 147, 153 (1950); *Lincoln Eng. Co.* v. *Stewart-Warner Corp.*, 303 U.S. 545 (1938); *Altoona Publix Theatres* v. *American Tri-Ergon Corp.*, 294 U.S. 447, 480 (1935).

Nor is there any departure from the accepted principles respecting patent infringement. A wealth of judicial decisions hold that a patent describing one thing (the stretched sheet diaphragm) cannot be construed to cover the antithesis (an unstressed foam rubber cushion). *Schriber-Schroth Co.* v. *Cleveland Trust Co.*, 305 U.S. 47, 58

(1938); *Westinghouse* v. *Boyden Power Brake Co.*, 170 U.S. 537, 568 (1898); *The Texas Company* v. *Globe Oil & Refining Co.*, 225 F. (2d) 725, 735 (7th Cir. 1955); *National Carbon Co.* v. *Western Shade Cloth Co.*, 93 F. (2d) 94, 96 (7th Cir. 1938); *The Texas Co.* v. *Anderson-Prichard Refining Corp.*, 122 F. (2d) 829, 841 (10th Cir. 1941); *Clark* v. *Wright Aeronautical Corp.*, 162 F. (2d) 960, 963 (2d Cir. 1947). These decisions are particularly applicable—and the correctness of the ruling below becomes especially clear—when it is recalled that the Petitioners contended below that the distinctive feature giving rise to the alleged infringement was that the foam rubber of the Beltone construction was "unstressed"—which is exactly contrary to the one thing that the patent shows, namely a "stretched" diaphragm. *Cf. Stelos Co.* v. *Hosiery Motor-Mend Corp.*, 295 U.S. 237, 242 (1935).

In an effort to inject a nonexistent aura of public interest into the petition, Petitioner stresses an alleged issue of patent validity. This potential issue never materialized in this case because it was rendered moot by the holding of noninfringement. Respondent's position below—and Respondent's position now—is that if the Cubert patent is given the elastic construction required to cover the accused product, the patent is then invalid as covering the prior art and for failure to make an adequate disclosure. *Cf. Smith* v. *Hall*, 301 U.S. 216 231-2 (1937); *Harries* v. *Air King Products Co.*, 183 F. (2d) 158, 161 (2d Cir. 1950). When the court below properly held that the Cubert patent could not be given this strained interpretation, this contingent issue of validity became wholly moot. No product made by Respondent raises any question of validity of the Cubert patent, except the contingent issue raised below and rendered moot by a holding of noninfringement.

It might be added that the language in *Sinclair Co.* v. *Interchemical Corp.*, 325 U.S. 327, 330 (1945), relied upon by Petitioner (page 13) states only that "* * * It has come to

be recognized, however, that of the two questions, validity has the greater public importance * * * and the District Court in this case followed what will usually be the better practice by inquiring fully into the validity of this patent." Neither this case nor any other case sanctions the fundamental departure from the norms of the judicial process inherent in decision on an uncontested matter of patent validity. Indeed, this Court has specifically stated that "To hold a patent valid if it is not infringed is to decide a hypothetical case." (*Altvater* v. *Freeman*, 319 U.S. 359, 363 (1943).

Nor is there any real split of authority among the courts of appeals. Where patent validity really is being contested the courts have consistently decided that issue. *E.g. Pennington Eng. Corp.* v. *Spicer Mfg. Co.*, 165 F. (2d) 59, 61 (6th Cir. 1947); *Powder Power Tool Corp.* v. *Powder Actuated Tool Corp.*, 230 F. (2d) 409, 415 (7th Cir. 1956); *Grant Paper Box Co.* v. *Russell Box Co.*, 151 F. (2d) 886, 890 (1st Cir. 1945). With equal consistency the courts have taken the position that moot and uncontested questions of patent validity will not be decided simply because some party thinks it will gain by such decision. *E.g. Harries* v. *Air King Products Co.*, 183 F. (2d) 158, 162 (2d Cir. 1950); *Patent Scaffolding Co.* v. *Up-Right, Inc.*, 194 F. (2d) 457 (9th Cir. 1952) (cert. den. 343 U.S. 958); *Specialty Equipment & Mach. Corp.* v. *Zell Motor Car Co.*, 193 F. (2d) 515, 520 (4th Cir. 1951).

Petitioners are silent with respect to the numerous issues which the Court of Appeals did not reach because it disposed of the case on finding noninfringement. These issues would nevertheless require argument before this Court. One such issue is that the Cubert patent cannot be construed to cover Beltone, because—if the patent is so construed—it would then encompass the construction shown in the

prior art Franzblau patent 2,182,865. Another issue is that the crowded prior art, including the Franzblau patent, the Shure Brothers public use, and the Western Electric public use, compels a limitation of the Cubert patent to the precise construction it shows. Still another matter is that the Cubert patent—if construed to cover the Beltone units (the TR model and each of the nine other models involved in the counterclaim)—is invalid in view of Gilson patent 1,400,283 and other prior art. Another issue—if the Cubert patent is construed to cover the Beltone units as Petitioners contend—is that the patent is invalid because it fails to disclose what is the criterion of infringement (lack of stress on the foam rubber michophone mount) and speaks only of the exact opposite (a stretched sheet diaphragm). Another issue requiring argument is that all relief for patent infringement here is barred by the doctrine of laches.

Consideration of these various matters entails a consideration of the various structures made by Beltone, the prior art constructions, the structure shown in the Cubert patent, and study of the 600 page printed record. They independently dictate judgment for Beltone.

The petition should be denied.

Respectfully submitted,

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JOHN T. FEY, Clerk

IN THE

Supreme Court of the United States

OCTOBER TERM, 1956

No. 561

AUREX CORPORATION and WALTER H. HUTH,
Petitioners,

v.

BELTONE HEARING AID COMPANY, *Respondent.*

PETITION FOR REHEARING OF ORDER DENYING PETITION FOR WRIT OF CERTIORARI.

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OCTOBER TERM, 1956

No. 561

AUREX CORPORATION and WALTER H. HUTH,
Petitioners,

v.

BELTONE HEARING AID COMPANY, *Respondent.*

PETITION FOR REHEARING OF ORDER DENYING PETITION FOR WRIT OF CERTIORARI.

Aurex Corporation and Walter H. Huth pray rehearing of this Court's order of December 17, 1956, denying certiorari, and that the writ of certiorari issue to review the judgment of the Court of Appeals of the Seventh Circuit in the above entitled cause, as sought by the petition filed herein.

This petition rests upon substantial grounds previously available to but not presented by petitioners.

For the convenience of the Court, the Appendix hereto contains:

1. Opinion of Judges of the Court of Appeals issued in this proceeding, consisting of (a) Judge Schnachenberg's opinion for the majority, with Judge Finnegan's brief memorandum of dissent, both filed August 31, 1956 and (b) special opinion of Judge Duffy, filed September 11, 1956;

2. Findings and conclusions of Judge Igoe in the District Court;

3. Copy of Cubert patent involved herein, and

4. Diagram of the construction of the accused device of respondent, for convenient comparison next to similar diagram of embodiment of invention described in Cubert patent.

REASONS FOR GRANTING REHEARING AND ISSUING WRIT

1. The decision to be reviewed directly conflicts with a recent decision of this Court, and departs widely from the usual course for judicial proceedings in appellate review, a course plainly and clearly charted by a decision of this Court which has been disregarded. The Court may well conclude that there exists appropriate occasion for exercise of its power of supervision.

The ignored decision of this Court is *Graver Tank and Manufacturing Company, Inc., et al.* v. *Linde Air Products,* 336 U.S. 271, 29 S. Ct. 535, 93 L. Ed. 672; decision adhered to on rehearing; 339 U.S. 605, 70 S. Ct. 854, 94 L. Ed. 1007 (1950).

That case and the instant proceeding present a remarkable parallel—up to the point of radical departure by the Court of Appeals from the precepts laid down by the Supreme Court's opinions.

Both cases were brought to enforce a patent. Both were decided by the Court of Appeals for the Seventh Circuit. And in both cases, the Court of Appeals substituted its judgment *on the facts* of the issue of infringement, for the considered judgment reached by the District Court after extensive consideration of the factual issues.

In one important respect the parallel ends. The determination of the factual issues by the Court of Appeals in this proceeding was based on *no rational evidence whatsoever*. There is no genuine issue. The Trial Court could not have found otherwise than it did, and the opposite determination by the Court of Appeals is completely unsupportable.

The mandate of this Court in the Graver Tank case clearly defined the respective roles of the Court of Appeals and District Court in the determination of such issues: "Proof can be made in any form: through testimony of experts or others versed in the technology; by documents, including texts and treatises; and, of course, by disclosures of the prior art. Like any other issue of fact, final determination requires a balancing of credibility, persuasiveness, and weight of evidence. It is to be decided by the Trial Court and that Court, under general principles of appellate review, should not be disturbed unless clearly erroneous. *Particularly is this so in a field where so much depends upon familiarity with specific scientific problems and principles not usually contained in the general storehouse of knowledge and experience.*" 339 U.S. at 609, 610. (Emphasis supplied).

This admonition was reiterated on rehearing: "Rule 52A of the Federal Rules of Civil Procedure provides

in part: 'Findings of fact shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the Trial Court to judge of the credibility of the witnesses.' *To no type of case is this last clause more appropriately applicable than to the one before us, where the evidence is largely the testimony of experts as to which a Trial Court may be enlightened by scientific demonstrations.*" 336 U.S. at 274. (Emphasis supplied).

Because the Court of Appeals had violated these precepts in reviewing the District Court's finding on infringement and equivalence, this Court in the Graver Tank case concluded that "the judgment of the Court of Appeals, insofar as it reversed that of the District Court, should be reversed and that the judgment of the District Court be in all things reinstated." (339 U.S. at 280).

It is difficult to conceive of a more widespread departure from this Court's precepts than that embodied in the decision of the Court of Appeals here in question. Its redetermination of the facts found by Judge Igoe was based entirely upon a strained and artificial construction given a single word in the specification—a construction diametrically opposed to reason, to the evidence, the history of the Patent Office proceeding, indeed, the fact of any scientific discovery, a fact established with the Court's determination of the patent's validity. As a matter of logic, it is impossible to reconcile the misconstruction of the Court of Appeals with its conclusion of validity. The misconstruction of the patent finds *no support of any kind in the record,* and for a very good reason: *no such contention was made by respondent in the Trial Court.*

2. That misconstruction not only emasculates the express words of the claim, but also ignores completely the doctrine of equivalents, described by the Court in *Graver Tank and Mfg. Co.* v. *Linde,* 339 U.S. 607, et seq. as follows:

> "But courts have . . . recognized that to permit imitation of a patented invention which does not copy every literal detail would be to convert the protection of the patent grant into a hollow and useless thing. Such a limitation would leave room for—indeed encourage—the unscrupulous copyist to make unimportant and insubstantial changes and substitutions in the patent which, though adding nothing, would be enough to take the copied matter outside the claim, and hence outside the reach of law. One who seeks to pirate an invention, like one who seeks to pirate a copyrighted book or play, may be expected to introduce minor variations to conceal and shelter the piracy. Out right and forthright duplication is a dull and very rare type of infringement. *To prohibit no other would place the inventor at the mercy of verbalism and would be subordinating substance to form.* It would deprive him of the benefit of his invention and would foster concealment rather than disclosure of inventions, which is one of the primary purposes of the patent system.
>
> "The doctrine of equivalents evolved in response to this experience. The essence of the doctrine is that one may not practice a fraud on a patent. Originating almost a century ago in the case of Winans v. Denmead (US) 15 How. 330, 14 L. ed. 717, it has been consistently applied by this Court and the lower federal courts, and continues today ready and available for utilization when the proper circumstances for its application arise. 'To temper unsparing logic and prevent an infringer from stealing the benefit of the invention' a patentee may invoke this doctrine to proceed against

the producer of a device 'if it performs substantially the same function in substantially the same way to obtain the same result.' Sanitary Refrigerator Co. v. Winters, 280 U.S. 30, 42, 74 L. ed. 147, 156, 50 S. Ct. 9. The theory on which it is founded is that 'if two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape.' Union Paper-Bag Machine Co. v. Murphy, 97 U.S. 120, 125, 24 L. ed. 935, 936.

"What constitutes equivalency must be determined against the context of the patent, the prior art, and the particular circumstances of the case. Equivalence, in the patent law, is not the prisoner of a formula and is not an absolute to be considered in a vacuum. It does not require complete identity for every purpose and in every respect. In determining equivalents, things equal to the same thing may not be equal to each other and, by the same token, things for most purposes different may sometimes be equivalents. Consideration must be given to the purpose for which an ingredient is used in a patent, the qualities it has when combined with the other ingredients, and the function which it is intended to perform. An important factor is whether persons reasonably skilled in the art would have known of the interchangeability of an ingredient not contained in the patent with one that was.

"A finding of equivalence is a determination of fact." (Emphasis supplied)

In fact, the Court of Appeals went so far as to ignore the claims involved, resting its misconstruction on a single word in the specifications. In this respect also it disregarded this Court's opinion in the Graver Tank case, which states:

> "The statute makes provision for specification separately from the claims and requires that the latter 'shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery.' Rev. Stat. § 4888, as amended, 35 USCA § 33, 9 FCA title 35, § 33. It would accomplish little to require that claims be separately written if they are not to be separately read. While vain repetition is no more to be encouraged in patents than in other documents, and claims like other statements may incorporate other matter by reference, their text must be sufficient to 'particularly point out and distinctly claim' an identifiable invention or discovery. We have frequently held that *it is the claim which measures the grant to the patentee.*" (336 U.S. at 277) (Emphasis supplied)

In effect, the Court of Appeals construed a statute by ignoring its express provisions, confining its attention to the preamble exclusively.

3. The invention relates to insulation of the microphone of a hearing aid from molecular vibrations in the casing or shell in which enclosed, typically caused by clothing noises—rubbing of the aid against clothing of the wearer. (Findings 7, 8, 12, 13, 14, and 16. Appendix 13a, 14a, 15a) Such vibrations, amplified by the aid, were, up to the time of the invention, a constant annoyance and interference to proper reception and hearing. (Findings 7, 11, 13, Appendix 13a, 14a)

The prior conventional art consisted of immobilizing the microphone inside the casing by the use of such shock cushioning materials as felt, leather, rubber, sponge rubber and springs, placed under tension, and which, as used, transmitted molecular vibrations due to the tension. (Findings 10, 12, 33, 34, 35, Appendix 13a, 14a, 17a, 18a)

4. The invention covered by the patent in suit is based upon the discovery that materials supporting the microphone *under tension* conduct undesirable molecular vibrations, and that such conduction was eliminated by mounting the microphone *without stress* other than its weight on a support with a low degree of vibration conductivity, leaving the microphone freely moveable bodily (Cubert Patent Appendix 21a, 22a; Findings 14, 25, 33, 34, Appendix 14a, 16a, 17a, 18a). The particular model illustrated by the drawing submitted with the application and described in the specification involved the use of a flexible sheet of silk suspended within the casing as a support for the microphone suspended thereby (Cubert Patent, Appendix 21a, 22a, 23a).

The testimony is undisputed that petitioner Aurex Corporation applied the principle through the use of silk in order to reduce the size of the hearing aid. At the time of conception of discovery microphones were considerable larger than in later years. Mounting the microphone on a thin suspended sheet of silk, rather than a rubber pad, reduced the thickness of the hearing aid. (R. 53, 140).

5. The findings of non-infringement by the Court of Appeals turn entirely upon the construction of the word "stretched" in the patent specification; and is used only twice, and then casually, in the 12 claims not involved herein (Claim 3, line 19, and Claim 8, line 3, Appendix 22a). That word appears twice in the specification but nowhere in the claims involved. In one instance in the specification the silk mounting is referred to as "stretched on the back of the chassis or frame," and in the other as a "thin flexible sheet which is stretched flat on said frame." (Cubert Patent Col. 2,

lines 11, 22 and 23, Appendix 21a). The latter use suggests the stretching referred to involved flatness, rather than tension. Nonetheless, with no support in the record of any kind, Judge Schnackenberg in his opinion arbitrarily *assumes* the word "stretched" to mean "stretched taut", that is, with tension applied to the silk support.

This assumption appears from repeated descriptions in Judge Schnachenberg's opinion which refers to respondent's mounting as being *unstressed* and *thereby* differing from the *"stretched"* support or sheet described in the patent specification. (Appendix 5a, 6a, 7a).

This fallacy in the basic assumption that "stretched" as used in the specification means "stretched taut" is inconsistent with the findings of Judge Igoe that "according to the invention the microphone is mounted on silk" *without any stress on a supporting material* of low vibration capacity so that it is freely moveable bodily from its normal resting position. The movement of the microphone *is unopposed by any member under stress which engages it and this unstressed support* will not transmit molecular vibrations from the housing of the microphone." (Finding 33, Appendix 17a; emphasis supplied)

The finding of Judge Igoe on this question was not only permitted but compelled. Any other finding by him would have been reversible as clearly unwarranted.—The reasons are many, and include the following:

a. The word "stretched," as such, does not inherently mean "stretched taut." It may equally mean

"extended", or "spread". Thus the New Century dictionary, Appleton Century-Crofts, 1948, gives the following definition:

"Stretch" . . . To draw out or extend (one's self, the body, limbs, wings, etc.) to the full length or extent; lay at full length, as in a prostrate position (as, to stretch one's self on the bed for a nap; . . . *extend, spread,* or place so as to reach from one point or place to another (as, to stretch a rope across a road; to stretch a curtain over an opening); *also,* to draw tight or taut (as, to stretch the strings of a violin or the membrane forming a drumhead"); (Emphasis supplied.)

b. Cubert's basic discovery was freedom from tension, reducing conductivity of molecular vibrations. To stress the silk or other mounting would have been counter to his entire purpose and would have nullified his discovery. Thus, to interpret the word "stretched" as meaning "stretched taut," when the object was lack of tension, gives an irrational meaning to that word perverting the whole scheme of the patent.

c. The Cubert patent was involved in an interference proceeding with Sonotone Corporation and Radioear Corporation, which was concluded in its favor on Claims 1 and 16. The common feature of all three applications was the support of the microphone so as to permit free bodily movement, although different support methods were used by the parties to the interference. (Finding 18, Appendix 15a). The Lybarger discovery, owned by Radioear, involved a microphone mounted on thin flexible rubber with air spaces between the rubber attached to the chassis and the rubber attached to the microphone. (R. 540 through

548). The Carlisle patent application, made on behalf of Sonotone, involved a microphone supported by foam rubber pads in a floating condition. (R. 531, 532). The result of the interference in favor of the Cubert application necessarily decided that the Cubert application essentially related to a floating microphone mounted without stress, since this was the feature common to all three applications.

d. In the trial court respondent made no contention and offered no evidence to establish that "stretched" should be construed as "stretched taut." The significance of this omission must be measured in the light of elaborate testimony by defendant's witnesses as to the meaning of various *other* terms employed in the patent (R. 417, 420, 421, 426, 427, 431, 432, 470, 471, 472, 473, 474).

On the other hand petitioner's expert witness, Drum, was asked on direct examination if there was "any stress provided in the silk screen 7 in the hearing aid as shown in the Cubert patent." To this he replied: "No there are no stresses, other than merely the stress of the microphone casing itself. There are no stresses." (R. 138)

Respondents did not question this testimony in their cross-examination of the witness.

e. Even narrowly viewing only the various terms used in the patent, entirely apart from the record, and the basic purpose of the invention, the context prohibits "stretched" being interpreted as "stretched taut," or as qualifying the language of the claims. The words "stretched flat" obviously refer to a mere extension or unfolding of the sheet of silk, "or other mounting of flexible material" (Cubert Patent, lines

37, 38, Col. 2, Appendix 21a). The language of the claims consistently describe the microphone in such terms as "freely moveable bodily" (Claim 1, lines 5 and 6, incorporated by reference in Claim 2; Claim 15, line 3, Appendix 22a), or "flexible material carrying said microphone in a relatively moveable position." (Claim 16, Appendix 22a). The freedom of movement and the flexibility of the mounting thus emphasized are inconsistent with rigidity resulting from stress.

In his opinion Judge Schackenberg refers to plaintiff's embodiment as involving a "diaphragm method," a "sheet diaphragm," and a sheet "which can only vibrate mechanically as a diaphragm," (App. 6a, 7a) by way of contrast with a "cushion" which "cannot vibrate diaphragmatically. The fallacy of describing the unstressed sponge rubber mounting as a cushion is hereafter exposed. This attempted "diaphragm" distinction is of no significance whatsoever. It has its origin in the testimony of defendant's expert witness, Schroeder, quoting Cubert in holding the Franzblau patent as not prior because the mounting was stressed. The Cubert, describing the Cubert *embodiment,* said:

> "The point is that applicant's silk or other cloth does not *transmit* molecular vibrations, or other vibrations. It can only vibrate *mechanically,* in the manner of a diaphragm. That is what gives the microphone freedom of motion within the outside casing." (R. 468, 469)

In other words, Cubert's mounting did not *conduct* molecular vibrations; the sheet itself moved; that is, vibrated like a diaphragm, thus, giving the microphone free movement. Unlike respondent's flexible mounting, the Franzblau patent, therefore, did not involve the Cubert principle. Thus, this evidence supports

rather than opposes petitioner's assertions, when properly understood.

For the foregoing reasons petitioners assert that the issues of fact on which the Court of Appeals overturned Judge Igoe are not fairly debatable. It is the substituted findings of the Court of Appeals, rather than Judge Igoe, which are without support and clearly erroneous. In the Graver Tank case there seems to have been some room for a difference on the facts. Here there is none.

5. Judge Schackenberg's opinion is subject to criticism in other significant respects as well, here mentioned to assist the Court in seeing the true issues. The distinction sought to be made between a foam rubber "cushion" and a "thin flexible sheet" is of no significance, and unsound. Foam rubber may serve as a cushion but in the accused device, it served as an *unstressed mounting,* as Judge Schnackenberg emphasizes. The lack of stress upon the rubber nullifies the thought of the mounting serving as a cushion, for a cushion, serving as a cushion, absorbs compressive stress by its "cushioning action." That is the function it performs which makes it a cushion. Findings 21, 22, 23, 26, 27, and 28 (App. 16a), all recognize the unstressed mounting function of the foam rubber as an infringing feature.

Both the accused device and plaintiff's model used rubber in the conventional manner, as bumpers to absorb shock, attached in both cases to the microphone but not to the casing. (R. 135, 136, 137, 180, 188, 189)

There is no question as to the propriety of this "cushioning" use of rubber. Similarly, the Patent Office interference proceeding resulted in Cubert's favor through recognition that unstressed rubber

mountings were a utilization of the principles embodied in the Cubert patent, though illustrated in his application by a flexible sheet. And the reference to defendant "floating a microphone by the conventional use of cushions" involves the same contradiction. Conventionally, cushions acted as cushions; they were stressed (Findings 10, 33 and 34 App. 16a) When the microphone is floated, the support is unstressed (Findings 22, 23, 26, App. 16a).

7. Judge Schnackenberg states that "it is undisputed that prior to the Cubert patent it was known that extraneous sounds in microphones could be eliminated or diminished by a floating mounting." This statement has no support in the record whatsoever, if it refers to a mounting of low sound conducting material *under no stress* apart from the weight of the microphone—*as it must, to be of any significance.* It is contradicted by the Court of Appeals conclusion that the patent is valid (Judge Finnegan's dissent upholding Judge Igoe's in all respects; and Judge Duffy's special opinion stating he is "of the opinion that the claims in suit are valid." (Appendix 9a, 10a, 11a). If Judge Schnackenberg's statement quoted were accurate, the patent could not be valid, even if limited to a silk sheet mounting.

Similarly, it was not "required" (as stated by Judge Schnackenberg, App. p. 3a) that there be a circular opening in the chassis to receive the microphone. The opening was obviously made to reduce the thickness of the hearing aid, consistent with that purpose as stated supra, p. 8.

8. The injustice to petitioner by the erroneous decision is reflected by the record. Petitioner Huth developed a sub-miniature vacuum tube, the device which

made the present day hearing aid industry possible, with resultant benefit to the afflicted. (R. 56, 57). The invention in question made acceptable the high fidelity crystal microphone in place of the low fidelity carbon microphone (R. 303). Aurex, a family enterprise (R. 555), had entered the hearing aid business in 1932, and for some years was one of the biggest in the industry (R. 34, 332). Emergency war work for the government completely suspended petitioner's hearing aid business (R. 38, 39, 44, 60, 61), at a time when it had over one hundred sales offices as outlets. This government work was financially disastrous and renegotiation proceedings paralyzed this company for some years (R. 39, 62, 63, 64, 67, 68). During this period respondent thrived (R. 309, 315). Respondent's president testified that Aurex had been, "one of the biggest companies in the industry", but at the time of trial was "a very small company." (R. 332). As late as 1952, respondent advertised its application of the patented discovery as if a new discovery by it (Pl. Ex. 18A, R. 537, 539).

Though not developed for the purpose of showing a ground for certiorari, the record does reflect the financial obstacles to a suit in another circuit possibly resulting in a conflict of decisions. The improbability of such a conflict was held in *Schriber-Schroth* v. *Cleveland Trust Co.,* 305 U.S. 47, 50, 59 S. Ct. 819 to justify the writ.

9. The wrong to petitioners in itself may not justify certiorari, but taken as representative of patentee's problems, generally, the instant proceeding may well be regarded in a different light. A review of the American Patent System Report of the Senate Judiciary (Senate Report 1464, 84th Cong. 2d Sess.) reflects a concern with the inability of the patentee to

enforce his patent. Hearings before the Senate Subcommittee investigating the patent system (pursuant to S.R. 92) include tables of the outcome of patents in the courts. In United States Courts of Appeals, years 1948-54, 86 of 449 patents involved were held valid and infringed, only 19.2% (Hearings p. 178, table 2). If patents may be rendered worthless by unfounded determinations by Courts of Appeal, in direct conflict with directives of this Court, the plight of the inventor is poor indeed; and his supposed rights are a delusion, serving only to arouse false hopes and inviting fruitless and expensive litigation to no avail but disappointment.

CONCLUSION

For the reasons set forth above and in the petition for certiorari, it is respectfully urged that rehearing be granted and that, upon such rehearing, a writ of certiorari issue to the Court of Appeals for the Seventh Circuit. It is respectfully suggested that the decision below is in conflict with the decision of this Court in the Graver Tank case, and such a departure from accepted course of judicial proceeding, as to thereafter warrant summary reversal. *Securities & Exchange Commission* v. *Otis & Co.,* 338 U.S. 843, 70 S. Ct. 89, 94 L. Ed. 516 (1949); *Ewing* v. *Gardiner,* 341 U.S. 321, 71 S. Ct. 684, 95 L. Ed. 968, (1951).

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Certificate of Service

I hereby certify that the foregoing petition for rehearing is presented in good faith and not for delay and is restricted to grounds specified in Rule 58 of the rules of this Court.

FRANK J. DELANY
Counsel for Petitioners.

APPENDIX

APPENDIX

IN THE UNITED STATES COURT OF APPEALS
FOR THE SEVENTH CIRCUIT

APRIL SESSION, 1956
OCTOBER TERM, 1955

No. 11707

AUREX CORPORATION, a corporation, and
WALTER H. HUTH, *Plaintiffs,*

v.

BELTONE HEARING AID COMPANY, a corporation, *Defendant.*

Appeal from the United States District Court for the Northern District of Illinois, Eastern Division.

August 31, 1956

Before DUFFY, *Chief Judge,* and FINNEGAN and SCHNACKENBERG, *Circuit Judges.*

SCHNACKENBERG, *Circuit Judge.* Defendant appeals from a judgment entered after a hearing by the district court, adjudging claims 1, 2, 15 and 16 of Cubert letters patent No. 2,304,339, owned by plaintiffs, valid and infringed by defendant, decreeing that plaintiffs recover from defendant damages resulting from said infringement and costs and expenses, and that defendant be enjoined from further infringement.

Plaintiffs' counsel state that the invention covered by the patent relates to an improved mounting of a microphone in a wearable hearing aid. They say that Cubert's invention relates to undesirable noises produced by physical contact of clothing, fingers or other objects with the cord, casing, or some other portion of the hearing aid apparatus, and that it practically eliminates "so-called clothing noises for persons having hearing deficiencies". They construe the patent as showing "that the [rear of the] microphone is cemented to the center of a sheet of silk or other flexible material which is stretched flat across an opening in a frame so that the microphone has no tight or rigid connection with the frame through which molecularly conducted noises might pass". They also say that "Cubert, working counter-current to the usual practice, achieved the result which had long evaded the prior workers in the art", that he found "that the microphone should not be packed tightly in any insulating or cushioning material" and that he "informed the art" that the microphone "should not be held tightly but should be supported in a free floating manner so that it would be freely movable bodily within the hearing aid casing".

Defendant's counsel contend that before any of the Cubert activity here in question it was known that microphones should be floatingly mounted to eliminate extraneous sounds. They point to uncontradicted evidence that springs, sponge rubber rings, felt pads or rings and gum rubber type elements were used for this purpose. They say that the accused device does not infringe "because it uses unstressed foam rubber cushions which are the antithesis of the only thing shown in the Cubert patent—the stretched sheet diaphragm."

Cubert's patent application was filed April 19, 1940 and the patent was issued December 8, 1942. Prior to April 19, 1940 Cubert, then an engineer for plaintiff Aurex, designed a hearing aid, in which a microphone was weighted

by a lead disk affixed on its rear side. Our inspection of the chassis and the casing of this construction shows that the combined lead disk and microphone required a circular opening in the chassis to receive the microphone. Cubert devised a construction to hold the microphone in this opening. He accomplished this by stretching a sheet of silk across the opening in the form of a diaphragm and cemented the sheet to the chassis at the edges of the opening. He then cemented the rear of the microphone to the sheet centered in relation to the opening. He also provided two foam rubber pads, bumpers, cushions or buttons, located on opposite sides on the front of and cemented to the microphone within its outer perimeter, and also a similar structure, round in shape, located and cemented to the sheet so as to place it between the sheet "where the latter was cemented to the back of the microphone and the back of the casing". These pads, by whatever name described, were admittedly conventional and were for the purpose of preventing shock.

These cushions are not mentioned in the written description of Cubert, although plaintiffs' witness Drumm testified in the district court that the round pad last above mentioned is shown in figure 4 of the drawings submitted with the application. However, there is no contention that it is in any way described or identified by any legend on the drawing.

Cubert's claims now in suit are:

1. In a portable microphone instrument to be worn on the person, as a part of a hearing aid apparatus, having an outside casing therefor, a microphone enclosed thereby and freely movable bodily therein and insulated against the communication thereto of vibrations set up in the said outside casing by scratching or contact or friction thereon.

2. A structure as specified in claim 1, said microphone having a mounting or support by material having a low degree of vibration-communicating capacity.

15. In a portable microphone instrument to be worn on the person, as a part of a hearing aid apparatus, having an outside casing therefor, a microphone enclosed thereby and freely movable bodily therein and insulted against the communication thereto of vibrations set up in the said outside casing, from within or by scratching or contact or friction thereon, or by attachments thereto, said microphone having a casing and a suitably supported sheet of flexible material fastened to the casing of the microphone and mounted on the outside casing.

16. In an amplifier hearing aid: a casing of hard material, of a size and shape that can be easily and conveniently carried in the pocket of a coat or under the clothing; a microphone housed in said casing; and supporting means including sheet elements of flexible material carrying said microphone in a relatively movable position within said casing so as to prevent vibrations imparted to the outside casing by scratching or the like from reaching the microphone.

The patent office examiner rejected claims 1 and 2, *inter alia,* as fully met by Franzblau[1] or Williams,[2] whereupon Cubert requested reconsideration because these claims called for a microphone instrument that "has freedom of movement within the outside casing, and this is not true of either one of the references cited."[3]

In Cubert's said request for reconsideration, in speaking of the silk cloth, he stated that "It can only vibrate mechanically in the manner of a diaphragm, but that is what gives the microphone freedom of motion within the outside casing."

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[1] 2,182,865.

[2] 1,311,430.

[3] In plaintiffs' brief they urge that the silk, as a sheet of flexible material of a low degree of vibration communicating capacity, thus suspended the microphone with clearance all around for free movement bodily relative to the casing.

However, Cubert amended his specifications by adding the language which is quoted in italics in the footnote below,[4] wherein are set forth excerpts from the specifications as amended.

In his specifications, as amended, Cubert says that "a sheet of silk is stretched on the back of the chassis or frame" and through the opening in the frame the back of the microphone extends and is cemented to this "thin flexible sheet". It is specified that this sheet of silk is "stretched on the back of the chassis or frame".

It is undisputed that prior to the Cubert patent it was known that extraneous sounds in microphones could be eliminated or diminished by a floating mounting.

In the accused device the microphone is located in the fore and aft direction by a pair of foam rubber cushions. The front cushion is in the form of a ring which, on one side thereof, is attached to the front edge of the micro-

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[4] "The invention resides in the method of mounting the microphone proper on the said frame or chassis, and in the weighting of the microphone over and above what is commonly or ordinarily done, in order to prevent vibrations, set up in the outside casing, from traveling through the said frame or chassis to the microphone, thereby creating a disturbance in the receiving instrument worn in the ear, or back of the ear, if bone conduction is employed. • • •

" • • • to prevent such disturbance and annoyance, an ordinary crystal microphone having an annular aluminum body 5, of light material, may have a lead back 6 of the requisite weight, thereby to give the microphone enough inertia for the desired purpose, and in addition, lead is not a transmitter of molecular vibrations, or of sound vibrations. In addition, a sheet of silk 7 is stretched on the back of the chassis or frame 1, and the said lead back 6 is cemented to the said sheet of silk or other flexible material. In this way, of course, the microphone proper is insulated against any vibrations that might be set up in the outside casing and that might be communicated therefrom to the said chassis or frame 1, and from the latter to the casing of the microphone, and then to the crystal inside. • • •

"It will be seen that the plate 1, which in effect forms a frame, has an opening 9 through which the back of the microphone 2 extends and is cemented to the thin flexible sheet 7, which is stretched flat on said frame." (Italics supplied.)

phone and, on the other side thereof, is attached to the inside of the front casing and around an open grill therein. The rear cushion is in the form of a smaller pad fastened only to the microphone. The district court found that the microphone is suspended by the foam rubber and without any stress upon the mounting member other than the slight weight of the microphone itself.

Defendant achieved its result by floating a microphone by the use of conventional cushions. It did not resort to a diaphragm. It did not use a thin sheet of silk or, in fact, a sheet of any material.

Cubert repeatedly refers to the diaphragm as a thin flexible sheet which is stretched. On the other hand, the district court found that in the accused device "a member of foam rubber is glued on one side to the inner surface of the hearing aid casing and on the other side to the microphone. The microphone is thus suspended by the foam rubber in an air space with clearance all the way around and *without any stress* upon the mounting member other than the slight weight of the microphone itself." (Emphasis supplied.) It further found that microphones "mounted upon unstressed foam rubber are freely movable bodily and isolated from the transmission thereto, through the mounting, of molecularly conducted sound vibrations" and also that the "microphone in the accused device is freely movable bodily and insulated against conduction thereto of molecular vibrations set up in the outside casing and receiver cord of the hearing aid, as by the rubbing of clothing thereon." Whatever may be the extent of the movability of the microphone of either the plaintiffs' or the accused device, the fact is that the microphone in the accused device is permitted to move only because of the *conventional* use of cushions. Defendant's result is attained without using the diaphragm method patented by Cubert. The latter's invention is directed only to a stretched sheet diaphragm used to solve his problem. Cushions cannot vibrate diaphragmatically. Cushions are relatively thick (in contrast to a "thin flexible

sheet, which is stretched flat''), and the thicker they are the more effective they become as non-conductors of molecularly conducted sound vibrations. Whereas Cubert devised the sheet diaphragm construction to locate a large weighted microphone in a chassis opening with small side, top, and bottom clearances, the accused device uses a small microphone with no added weight in a small chassis where side, top and bottom clearances are no problem, and without any chassis opening. Defendant simply glues the microphone to the cushion, which is itself fastened directly to the case. Cubert's patent, which teaches the use of a stretched diaphragm, is not infringed by the use of a conventional cushion, found by the district court to be unstressed except for the slight weight of the microphone itself. *Permutit Co.* v. *Graver Corp.*, 284 U.S. 52, 57; *Burroughs Adding Machine Co.* v. *Felt & Tarrant Mfg. Co.*, 243 Fed. 861, 870; *The Texas Company* v. *Globe Oil and Refining Co.*, 225 F. 2d 725, 733, 737.

Cubert placed his emphasis upon the use of a ''stretched'' support, and a ''thin flexible sheet'' which can ''only vibrate mechanically in the manner of a diaphragm''. Surely this cannot encompass a microphone ''mounted upon unstressed foam rubber'', or a microphone '' * * * suspended by the foam rubber * * * without any stress upon the mounting member other than the slight weight of the microphone itself.''

We conclude that defendant has not infringed the Cubert patent, as alleged in plaintiffs' complaint. Therefore, the judgment of the district court is reversed.

The district court did not adjudicate upon a counterclaim filed by defendant, praying *inter alia* for a judgment that the claims in suit are not infringed by any hearing aids manufactured by defendant. On that contention, *inter alia*, plaintiffs joined issue on the counterclaim by filing an answer thereto, but they offered no evidence with respect to any of defendant's models other than the accused device.

Defendant introduced evidence in support of its counterclaim, showing that hearing aids known as defendant's exhibits 1 to 9 inclusive[5] and defendant's exhibit 12[6] each involve a mounting of a microphone which in principle is the same as the mounting involved in the accused device. Furthermore, interrogatory No. 23 submitted by defendant read:

> "Do Plaintiffs charge any of the following hearing aids manufactured by Plaintiff as infringements of Cubert Letters Patent No. 2,304,339 and, if so, state which claims are alleged to be infringed.
>
> a. TR
> b. Lyric Transistor
> c. Mono-Pac
> d. Rhapsody
> e. Concerto
> f. Model H
> g. Symphonette
> h. Melody
> i. Harmony
> j. Lyric."

Plaintiffs answered that said hearing aids "all appear to embody the invention of Cubert Letters Patent No. 2,304,339 as defined in Claims 1, 2, 15 and 16 thereof". The hearing aids described in interrogatory No. 23 include defendant's exhibits 1 to 9 inclusive. It appears that defendant's exhibit 10 for identification[7] is the hearing aid referred to as Concerto in interrogatory No. 23. Inasmuch as defendant's attempts were abortive when it tried to establish by references to a chart (sometimes referred to as "defendant's exhibit 20" but not received in evidence) that the Concerto

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[5] Defendant's exhibit 8 appears to be the same model as plaintiffs' exhibit 9.

[6] Known as Allegro.

[7] It was not received in evidence.

model involved a microphone mounting similar to that involved in the accused device, we find that on the record before us defendant is not entitled to any relief on its counterclaim as to that model.

Our views in reference to the accused device, (which is known in the record as plaintiffs' exhibit 9, and also as defendant's exhibit 8, and a part of which is reproduced in a drawing known as plaintiffs' exhibit 14) of course apply to the hearing aids actually introduced in evidence by defendant in support of its counterclaim.[8] They do not infringe the claims of Cubert in issue in this case. As to those hearing aids, it follows that the district court erred in not entering judgment of noninfringement on the counterclaim. Accordingly, this case is remanded to the district court for that purpose.

REVERSED AND REMANDED WITH INSTRUCTIONS.

FINNEGAN, *Circuit Judge, Dissenting.* I would affirm the judgment of the District Court.

A true Copy:

Teste:

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Clerk of the United States Court of Appeals for the Seventh Circuit.

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[8] Defendant's exhibits 1 to 9 inclusive and defendant's exhibit 12.

IN THE UNITED STATES COURT OF APPEALS
FOR THE SEVENTH CIRCUIT

OCTOBER TERM, 1955
APRIL SESSION, 1956

No. 11707

AUREX CORPORATION and WALTER H. HUTH,
Plaintiffs-Appellees,

v.

BELTONE HEARING AID COMPANY, *Defendant-Appellant.*

Appeal from the District Court of the United States for the Northern District of Illinois, Eastern Division.

September 11, 1956

DUFFY, *Chief Judge,* concurring.

As I agree that infringement of the claims in suit was not established, I concur that the cause must be reversed and remanded. However, I think we should have discussed and decided the question of the validity of the claims in suit.

In *Sinclair Co.* v. *Interchemical Corp.*, 325 U.S. 327 the Court said, page 330: "There has been a tendency among the lower courts in infringement suits to dispose of them where possible on the ground of non-infringement without going into the question of validity of the patent (Citing cases). It has come to be recognized, however, that of the two questions, validity has the greater public importance (citing case), and the District Court in this case followed

what will usually be the better practice by inquiring fully into the validity of this patent."

In the case at bar the District Court upheld the validity of the claims in suit. That question was squarely raised on this appeal. I recognize there is some difference of opinion in the circuits as to the interpretation to be given to the admonition of the Supreme Court in the *Sinclair* case. The Sixth Circuit interprets it as a direction always to decide the issue of validity. *Pennington Engineering Co.* v. *Spicer Mfg. Co.*, 165 F.2d 59, 61.

In *Powder Power Tool Corp.* v. *Powder Actuated Tool Corporation*, 230 F.2d 409, 415, this Court said: "In spite of our determination of non-infringement we follow the 'better practice' and turn now to the question of the validity of the claims."

There is, of course, some justification for other courts to hold that where there is non-infringement and the claims of the patent are not clearly invalid on their face, that it is, in effect, deciding a moot question to consider the question of validity. See *Harries* v. *Air King Products Co.*, 183 F. 2d 158, 162; *Patent Scaffolding Co.* v. *Up-Right, Inc.*, 194 F. 2d 457.

In the case at bar we have the situation where one judge, in dissenting, states that he would affirm the judgment of the District Court. That necessarily means that he thinks the claims in suit are valid. I likewise am of the opinion that the claims in suit are valid. Under such circumstances I think the question of validity should have been discussed and decided in the main opinion.

A true Copy:

Teste:

.....

Clerk of the United States Court of Appeals for the Seventh Circuit.

IN THE UNITED STATES DISTRICT COURT

* * (Caption—54 C 486) * *

Findings of Fact and Conclusions of Law.

1. Plaintiff, Aurex Corporation, is a corporation of the State of Illinois with a regular and established place of business at 1117 North Franklin Street, Chicago, Illinois where it is engaged in the business of manufacturing and selling portable hearing aids to be worn in and about the clothing of persons suffering from a hearing loss.

2. Plaintiff, Walter H. Huth, the present owner of the patent involved in this action, is an individual residing at 6229 North Winthrop Street, Chicago, Illinois.

3. Defendant Beltone Hearing Aid Company is a corporation of Illinois with a regular and established place of business at 2900 West 36th Street, Chicago 32, Illinois where it is engaged likewise in the business of manufacturing and selling portable hearing aids to be worn on the person.

89 4. The patent in suit is United States Letters Patent No. 2,304,339 issued December 8, 1942 on the invention of Joseph R. Cubert for an improved "Microphone". The patent was assigned to Plaintiff Aurex Corporation before its issuance, as noted on the face thereof, and later assigned June 7, 1948 to Plaintiff Walter H. Huth who ever since then has been the owner of said Letters Patent. Ownership of the patent is not contested.

5. This is a civil action brought under the Patent Laws of the United States, and in accordance with the provisions of Title 28 U. S. C. Secs. 1338 and 1400 (b), charging defendant with the infringement of Claims 1, 2, 15 and 16 of the Cubert Patent No. 2,304,339 and seeking injunctive relief; an accounting for profits and damages, not less than a reasonable royalty therefor; costs; and reasonable attorneys' fees. The acts of infringement complained of were and are being committed by defendant in the City of Chicago, State of Illinois within this District and elsewhere within the United States.

6. Hearing aids such as that involved in this action have a microphone mounted in an outside casing along with batteries and a miniature electronic sound amplifier to form a self-contained unit. The microphone itself includes a diaphragm and crystal sub-assembly supported in
90 a microphone housing. Airborne sound vibrations are picked up by the diaphragm and transmitted thereby to the crystal as desirable sounds whereas mechanical vibrations transmitted to the microphone housing are picked up directly by the crystal as undesirable sounds and converted in electric pulsations. These pulsations are fed into the amplifier and the output of the amplifier is conducted by a cord known as a receiver cord to a receiver that is inserted in the ear of the user. There the amplified electric pulsations are converted back to sound vibrations.

7. The self-contained hearing aid unit is usually carried in a pocket on the clothing of the user where the outside casing thereof and the receiver cord connected thereto are in constant rubbing and scratching contact with the clothing as the wearer moves about.

8. This contact develops vibrations, a slight amount of which becomes airborne, but most of which are set up as molecular vibrations and transmitted by molecular conduction through the solid materials of which the assembled parts and receiver cord are made.

9. Perforated openings in the casing of the hearing aid permit airborne sound vibrations desired to be heard to reach the diaphragm of the microphone, but prior to the invention of the patent in suit the molecular vibrations set up in the casing of the hearing aid reached the crystal of the microphone directly by molecular conduction through the material of the assembled parts, which parts included a shock cushioning material always under substantial stress.

91 10. Shock cushioning materials as used prior to the invention of the patent in suit for portable hearing aids did not permit free bodily movement of the microphone

supported thereby and transmitted substantial amounts of molecular vibration to the microphone housing and the crystal from the casing of the hearing aid.

11. Expert witnesses as well as other witnesses, for both parties, are in agreement that a major problem existed in the hearing aid industry with respect to the transmission to the microphone of noises and other undesirable sound vibrations set up in the casing and cord of the hearing aid by the clothing of the user scratching and rubbing against them.

12. Molecular vibrations transmitted by molecular conduction are harsh and sharp and of greater amplitude as compared with the airborne vibrations which are dampened by the air carrying them. In heretofore conventional hearing aids, the vibrations that reach the microphone included the highly undesirable harsh molecular vibrations, identified as clothing noises, which masked and interfered with the desirable airborne sounds.

13. Clothing noises carried into the output of a hearing aid are particularly annoying and irritating to a person suffering a hearing loss. It is always present within the limited range of sound perception available to him.

92 14. The invention covered by the patent in suit is for a microphone mounting by which the microphone is freely movable bodily on a floating support in the housing of a hearing aid, as hung in the air by a material having a low degree of vibration communicating capacity, whereby molecular vibrations such as clothing noises developed in the casing of the hearing aid have no molecularly conductive bridge to the microphone and are kept from reaching the microphone and being heard by the user. Substantially all vibrations are cut off from reaching the microphone crystal except those sounds which are airborne to the diaphragm of the microphone.

15. The invention covered by the patent in suit is a substantial and important advance in the art of hearing aids for persons having defective hearing.

16. The result attained by the invention of the patent in suit is the prevention of all vibrations from reaching the microphone of a hearing aid except the desirable ones which are airborne to the microphone. The problem solved was how to prevent molecularly transmitted sound vibrations, particularly clothing noises, set up in the outer casing of a hearing aid from reaching the microphone of a portable hearing aid.

17. Licenses under the patent in suit have been granted to the Western Electric Company, Zenith Radio Corporation, Sonotone Corporation and Radioear Corporation, all of which are manufacturers of portable hearing aids.
93 The license to Western Electric was solicited by Western Electric in 1948 after a change made by Western Electric in its microphone mounting on its hearing aid. The license to Zenith Radio Corporation was solicited by Plaintiff and granted in 1950.

18. The licenses to Sonotone Corporation and Radioear Corporation grew out of a three party interference No. 78,931 which was concluded in favor of the patent in suit on Claims 1 and 16 thereof which are involved in this action. The other two parties were Samuel F. Lybarger, Application Serial No. 347,700 owned by Radioear, and R. W. Carlisle, Patent No. 2,351,400 owned by Sonotone. The specific embodiment shown in all three interfering applications differ from each other in structure and material but the microphones in all three structures are freely movable bodily as supported on floating supports.

19. The accused device is the model Mono-Pac TR Hearing Aid (Plaintiffs' Exhibit 9) manufactured and sold by defendant before this action was brought.

20. Actual notice of infringement was given by Plaintiffs to Defendant on or about October 26, 1953 and constructive notice of said patent has been given to Defendant by Plaintiff Aurex Corporation marking the patent number as required by Statute on all devices manufactured by it embodying the invention covered by the patent in suit.

94 21. In the accused device, a member of foam rubber is glued on one side to the inner surface of the hearing aid casing and on the other side to the microphone. The microphone is thus suspended by the foam rubber in an air space with clearance all the way around and without any stress upon the mounting member other than the slight weight of the microphone itself.

22. Microphones mounted upon unstressed foam rubber are freely movable bodily and isolated from the transmission thereto, through the mounting, of molecularly conducted sound vibrations.

23. The microphone in the accused device is freely movable bodily and insulated against conduction thereto of molecular vibrations set up in the outside casing and receiver cord of the hearing aid, as by the rubbing of clothing thereon.

24. Defendant in its advertising in 1952 stressed the suppression of clothing noises as a feature of the accused device (Plaintiffs' Exhibit 18A).

25. Plaintiff's demonstration in open court of various mounting materials and methods by the witness Bartlett, who has a subsantial hearing deficiency, shows that only those mountings in which the microphone is freely movable bodily on a material having a low vibration communicating capacity effectively prevents the transmission to the microphone of molecularly conductive sound vibrations developed in the casing or receiver cord.

95 26. The microphone mounting of foam rubber sheet material in the accused device is the equivalent of the specific embodiment of the invention shown in the patent in suit.

27. Defendant's device responds to the terms of the claims in suit to perform in substantially the same manner and to give substantially the same result as the patent in suit within the intent and meaning of the claims.

28. Claims 1, 2, 15 and 16 of the patent in suit are infringed by the accused device.

29. The concept and practice of the invention as taught by the patent in suit and as found in the accused device is not found in any of the prior art relied upon by the defendant.

30. The prior patents and publications cited by defendant and introduced in evidence, considered singly and collectively, fail to teach the invention taught and claimed in the patent in suit.

31. None of the references cited by the defendant and introduced into evidence are any better as references than the patents cited by the Patent Office during the prosecution of the application which resulted in the patent in suit, and therefore it may be presumed that the Examiner in charge of the prosecution of the application in the Patent Office noticed and passed over all of the other refer-
96 ences relied upon by the defendants, as showing no more than the ones that were specifically cited in the prosecution of the patent, particularly in view of the fact that Claims 1 and 16 were probably given extra consideration by the interference parties as well as the examiner as counts of the interference No. 78931.

32. Prior art devices adduced by defendant as anticipations of the claims in suit fail to show or suggest the inventive concept, or its practice, as taught by the patent in suit.

33. The concept of the patent in suit was entirely different than the prior practice. Instead of packing microphones in place as one would a delicate instrument for shipment, the invention contemplated doing just the opposite. According to the invention the microphone is mounted without any stress on a supporting material of low vibration conductive capacity so that it is freely movable bodily from its normal resting position. The movement of the microphone is unopposed by any member under stress which engages it and this unstressed support will not transmit molecular vibrations from the housing to the microphone.

34. Prior art devices and early patents and models submitted by Defendants for purposes of anticipation had

microphones held or placed in place against shock by materials engaging the microphone casing under stress.
97 These materials were merely cushioning materials such as felt, rubber, leather, sponge rubber, and springs, placed under compression or tension to protect the microphone against physical harm. All of these materials as used transmit molecular vibrations.

35. The Western Electric Model 38-A hearing aid, Defendant's Exhibit 11, offered by Defendant as a prior public use, has a microphone mounting of a solid rubber material clamped in place by flat springs under tension which established a compressive stress upon the mounting material. The microphone of this exhibit is not freely movable bodily and the solid rubber mounting material will transmit molecular sound vibrations. The Western Electric Model 38-A fails to meet the terms of the claims in suit.

36. The failure of the spring clamped rubber mounting to eliminate the transmission of molecular sound vibrations to the microphone in the Western Electric Model 38-A was recognized by the Western Electric engineers in their development of an improved hearing aid in which the microphone was mounted for free bodily movement, and caused Western Electric to approach plaintiff and seek a license for the improved device.

98 37. The Shure Bros. microphone Model 760-A (Defendants' Exhibit 18b) offered by Defendant as prior public use embodies a plurality of sponge rubber supports clamped under compression over the rim of the microphone. The microphone of this Exhibit is not freely movable bodily and compressed sponge rubber mounting material transmits molecular sound vibrations as shown by tests conducted by Plaintiff in open court.

38. The Shure Bros. microphone model 760-A (Defendants' Exhibit 18b) does not anticipate the claims 1, 2, 15 and 16 of the patent in suit.

39. The patent in suit is presumed to be valid, has prevailed in a three party interference involving the subject

matter of two claims here in issue, and Defendant has failed to rebut the presumption of validity.

99 Conclusions of Law.

1. The Court has jurisdiction of the subject matter of this Action and of the parties to it, and the venue of the Action is properly laid in the Northern District of Illinois, Eastern Division.

2. Plaintiffs are owners in privity of the patent in suit and of all rights thereunder, including the right of injunctive relief against infringement and to recovery for past infringement.

3. Each of the claims 1, 2, 15 and 16 of Cubert Patent No. 2,304,339 in suit involves patentable subject matter; is not anticipated; and is valid in law.

4. Each of the claims 1, 2, 15 and 16 of Cubert Patent No. 2,304,339 in suit is infringed by Defendant's accused hearing aid.

5. Plaintiffs are entitled to a permanent injunction and to an assessment of damages for past infringement and costs, as prayed for in the Complaint.

100 6. There shall be a judgment in the usual form adjudicating the Cubert patent No. 2,304,339, and claims 1, 2, 15 and 16 thereof, to be valid and infringed by said Defendant; enjoining said Defendant as above provided; ordering an accounting for damages sustained by Plaintiffs as a result of past infringement; and awarding costs to Plaintiffs.

Igoe

UNITED STATES PATENT OFFICE

2,304,339

MICROPHONE

Joseph R. Cubert, Chicago, Ill., assignor to Aurex Corporation, Chicago, Ill., a corporation of Illinois

Application April 19, 1940, Serial No. 330,479

17 Claims. (Cl. 179—107)

This invention relates to microphones for use as a part of a hearing aid apparatus, of the kind that can be worn under the lapel of a coat, or under a garment, or concealed in some other way.

Generally stated, the object of the invention is to provide a novel and improved construction and arrangement whereby impacts on the outside casing of the instrument, or scratching thereon, even by the clothing of the person wearing the apparatus, or things other than what the user desires to hear, will not be conveyed to the microphone mounted within the casing, the said microphone being preferably of the well known crystal type, and being very sensitive.

It is also an object to provide certain details and novel features of construction tending to increase the general efficiency and desirability of a hearing aid microphone of this particular character.

To the foregoing and other useful ends, the invention consists in matters hereinafter set forth and claimed and shown in the accompanying drawing, in which—

Fig. 1 is a perspective of a microphone instrument embodying the principles of the invention.

Fig. 2 is a top or front view, with the front cover of the casing removed.

Fig. 3 is a rear elevation or back view of the microphone and the frame by which it is mounted in the outside casing, showing the latter in section.

Fig. 4 is a longitudinal section on line 4—4 in Fig. 1 of the drawing.

Fig. 5 is a perspective of the annular microphone that is enclosed in the outside casing.

As thus illustrated, the invention comprises an inside frame or chassis 1, on which the microphone 2 is mounted, and on which the amplifying tubes and other things are also mounted. This frame or chassis is suitably fastened in the casing 3 that preferably has a removable front cover 4, as shown in the drawing.

The invention resides in the method of mounting the microphone proper on the said frame or chassis, and in the weighting of the microphone over and above what is commonly or ordinarily done, in order to prevent vibrations, set up in the outside casing, from traveling through the said frame or chassis to the microphone, thereby creating a disturbance in the receiving instrument worn in the ear, or back of the ear, if bone conduction is employed. With the ordinary construction, even the brushing and rustling and friction of clothing against the outside casing creates a disturbance in the said receiving instrument, to the annoyance of the user thereof.

Therefore, to prevent such disturbance and annoyance, an ordinary crystal microphone having an annular aluminum body 5, of light material, may have a lead back 6 of the requisite weight, thereby to give the microphone enough inertia for the desired purpose, and in addition, lead is not a transmitter of molecular vibrations, or of sound vibrations. In addition, a sheet of silk 7 is stretched on the back of the chassis or frame 1, and the said lead back 6 is cemented to the said sheet of silk or other flexible material. In this way, of course, the microphone proper is insulated against any vibrations that might be set up in the outside casing and that might be communicated therefrom to the said chassis or frame 1, and from the latter to the casing of the microphone, and then to the crystal inside. In other words, the microphone has a floating support and is insulated against structural vibration of the instrument as a whole, so that the crystal can only be energized or agitated by the sound vibrations coming in from the atmosphere through the louvre openings 8 in the front cover of the casing, these openings being opposite the front of the microphone.

It will be understood, of course, that instead of providing the lead back 6 in an aluminum microphone frame, as shown, the entire annular frame or casing of the crystal microphone can be thickened and increased in weight to the point where the desired degree of inertia will be insured for the microphone proper; but it will be understood that too much weight is not desirable, and that hence a moderate amount of weight, plus the silk mounting, or other mounting of flexible material, is more desirable as an expedient for preventing structural vibrations in the outside casing of the instrument from being finally conveyed to the crystal element in the microphone. It is found that in this way, tapping or brushing or friction or scratching on the outside casing does not create a disturbance in the ear of the user of the hearing aid apparatus.

In other words, the invention broadly considered prevents all vibrations from reaching the elements of the microphone proper, except those that are desired to be heard by the user of the instrument.

It will be seen that the plate 1, which in effect forms a frame, has an opening 9 through which the back of the microphone 2 extends and is cemented to the thin flexible sheet 7, which is stretched flat on said frame.

PAGE BOUND VERTICAL IN BOOK

What I claim as my invention is:

1. In a portable microphone instrument to be worn on the person, as a part of a hearing aid apparatus, having an outside casing therefor, a microphone enclosed thereby and freely movable bodily therein and insulated against the communication thereto of vibrations set up in the said outside casing by scratching or contact or friction thereon.

2. A structure as specified in claim 1, said microphone having a mounting or support by material having a low degree of vibration-communicating capacity.

3. A structure as specified in claim 1, said microphone having a mounting or support by material having a low degree of vibration-communicating capacity, said material being a sheet of flexible non-vibration transmitting material stretched on a frame or chassis mounted inside of said casing.

4. A structure as specified in claim 1, said microphone being of greater weight than is commonly or ordinarily employed, thereby to give it the desired degree of inertia within the said casing.

5. A structure as specified in claim 1, said microphone having greater weight than is usual or ordinary in instruments of this kind, to give it greater inertia, and having a mounting or support of non-vibration-communicating material within said casing.

6. A structure as specified in claim 1, the said microphone having a hollow body which is enclosed in said outside casing and which is provided, to a more or less extent, with lead metal to retard molecular vibration and to provide the desired degree of inertia for the microphone.

7. The combination of a casing having a complete microphone mounted and freely movable bodily within limits therein, and preventive means inside the casing, intervening between the latter and said microphone, acting to insulate the microphone against communication thereto of vibrations set up in the outside casing, said means comprising a lead weight at the back of the microphone proper inside said casing.

8. A portable microphone comprising a casing of hard material, of a size and shape that can be easily and conveniently carried in the pocket of a coat or under the clothing, a plate rigidly fastened in place in said casing, forming a frame, a sheet of thin flexible non-metallic material stretched flat on said frame, with freedom of diaphragmatic vibration, but incapable of transmitting any molecular vibrations of disturbance communicated to said frame, and a microphone instrument attached to said sheet and freely movable therewith, thereby preventing any vibration of said casing from reaching the active element of said instrument, the front wall of the casing having one or more openings through which sound waves may reach said instrument.

9. A structure as specified in claim 8, said material being cloth to which the back of said instrument is cemented.

10. A structure as specified in claim 8, and including a weight secured to said instrument within said casing to dampen and retard movement thereof relative to said casing.

11. In a portable microphone instrument to be worn on the person, as a part of a hearing aid apparatus, having an outside casing therefor, a microphone enclosed thereby and freely movable bodily therein and insulated against the communication thereto of vibrations set up in the said outside casing by scratching or contact or friction thereon, said microphone having a casing formed with a flat back, and a suitably supported flat sheet of non-metallic flexible material cemented flatwise to said flat back.

12. A structure as specified in claim 11, said back being of relatively heavy material that is sound deadening in character.

13. A structure as specified in claim 11, said back being formed by a thickness of lead.

14. A structure as specified in claim 11, said sheet of material being of a fibrous nature and a non-conductor of sound.

15. In a portable microphone instrument to be worn on the person, as a part of a hearing aid apparatus, having an outside casing therefor, a microphone enclosed thereby and freely movable bodily therein and insulated against the communication thereto of vibrations set up in the said outside casing, from within or by scratching or contact or friction thereon, or by attachments thereto, said microphone having a casing and a suitably supported sheet of flexible material fastened to the casing of the microphone and mounted on the outside casing.

16. In an amplifier hearing aid: a casing of hard material, of a size and shape that can be easily and conveniently carried in the pocket of a coat or under the clothing; a microphone housed in said casing; and supporting means including sheet elements of flexible material carrying said microphone in a relatively movable position within said casing so as to prevent vibrations imparted to the outside casing by scratching or the like from reaching the microphone.

17. In a portable microphone instrument to be worn on the person, as a part of the hearing aid apparatus, having an outside casing therefor, a microphone enclosed thereby and freely movable bodily therein and insulated against the communication thereto of vibrations set up in the said outside casing by scratching or contact or friction thereon, one element of said microphone having a mass of substantial inertia.

JOSEPH R. CUBERT.

CERTIFICATE OF CORRECTION.

Patent No. 2,304,339. December 8, 1942.

JOSEPH R. CUBERT.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 2, first column, line 55, claim 8, for "of" read --or--; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 11th day of May, A. D. 1943.

Henry Van Arsdale,
Acting Commissioner of Patents.

(Seal)

22

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Dec. 8, 1942. J. R. CUBERT 2,304,339

MICROPHONE

Filed April 19, 1940

FIG. 1.

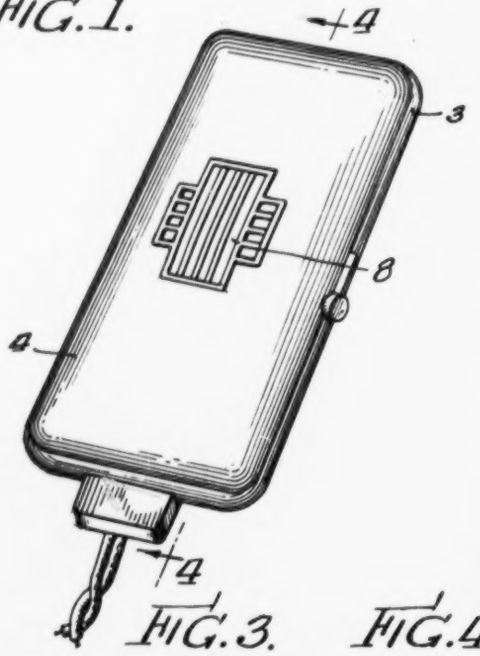


FIG. 2.

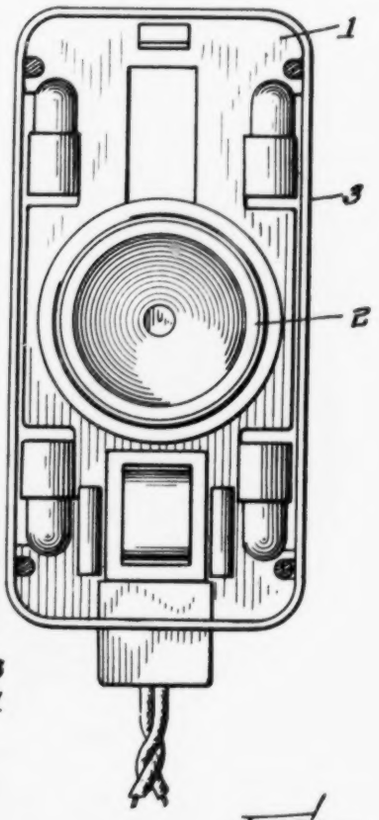


FIG. 3.

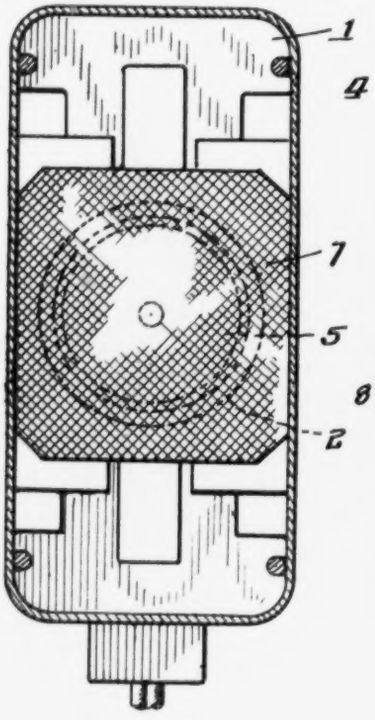


FIG. 4.

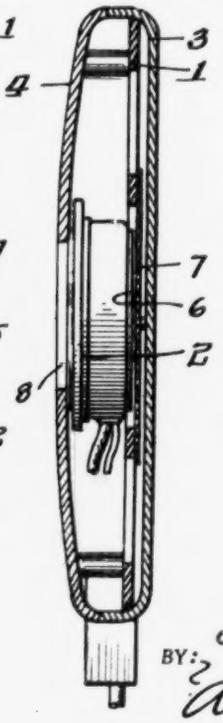
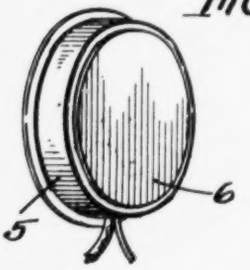


FIG. 5.



INVENTOR.
Joseph R. Cubert

BY: Arthur H. Durand
ATTORNEY.

32

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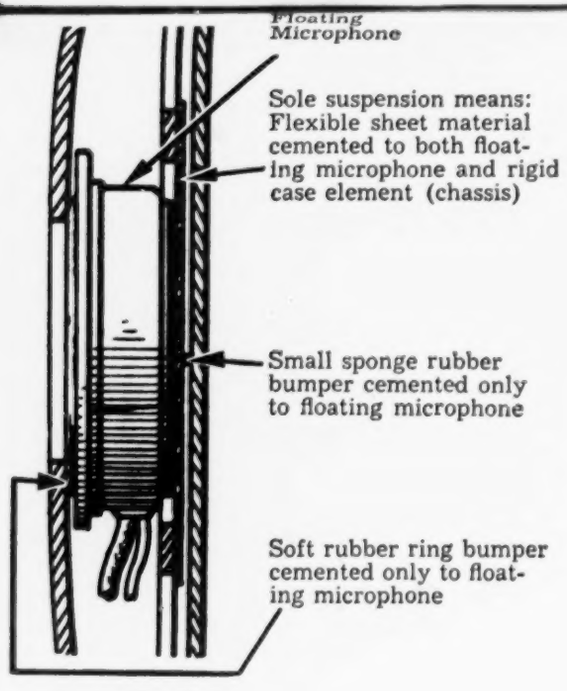
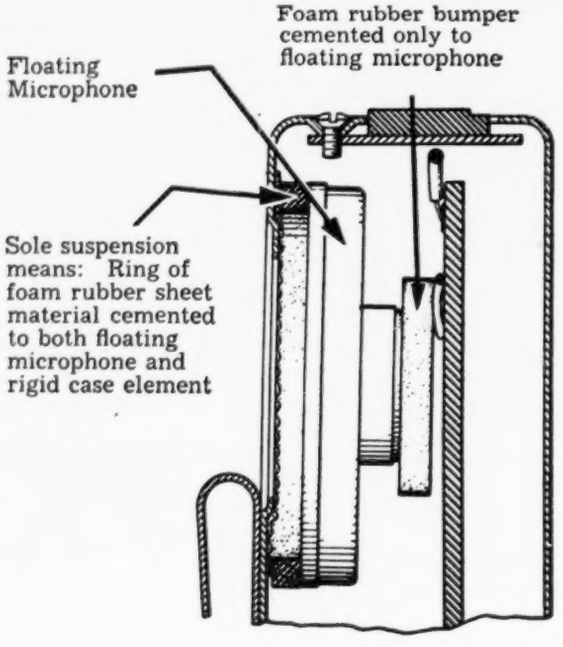

Floating Microphone
Sole suspension means: Flexible sheet material cemented to both floating microphone and rigid case element (chassis)
Small sponge rubber bumper cemented only to floating microphone
Soft rubber ring bumper cemented only to floating microphone

Cubert construction from patent drawing

(R. 135, 137, 162, 188)


Foam rubber bumper cemented only to floating microphone
Floating Microphone
Sole suspension means: Ring of foam rubber sheet material cemented to both floating microphone and rigid case element

Accused Beltone construction

(Pltf. Exhibit 14; R. 170 thru 181)

APR 25 1957
JOHN T. FEY, Clerk

IN THE

Supreme Court of the United States

OCTOBER TERM, 1956

No. 561

AUREX CORPORATION AND WALTER H. HUTH, *Movants*

v.

BELTONE HEARING AID COMPANY

MOTION TO RECALL NOTICE OF DENIAL OF CERTIORARI, AND TO AMEND ORDER DENYING CERTIORARI

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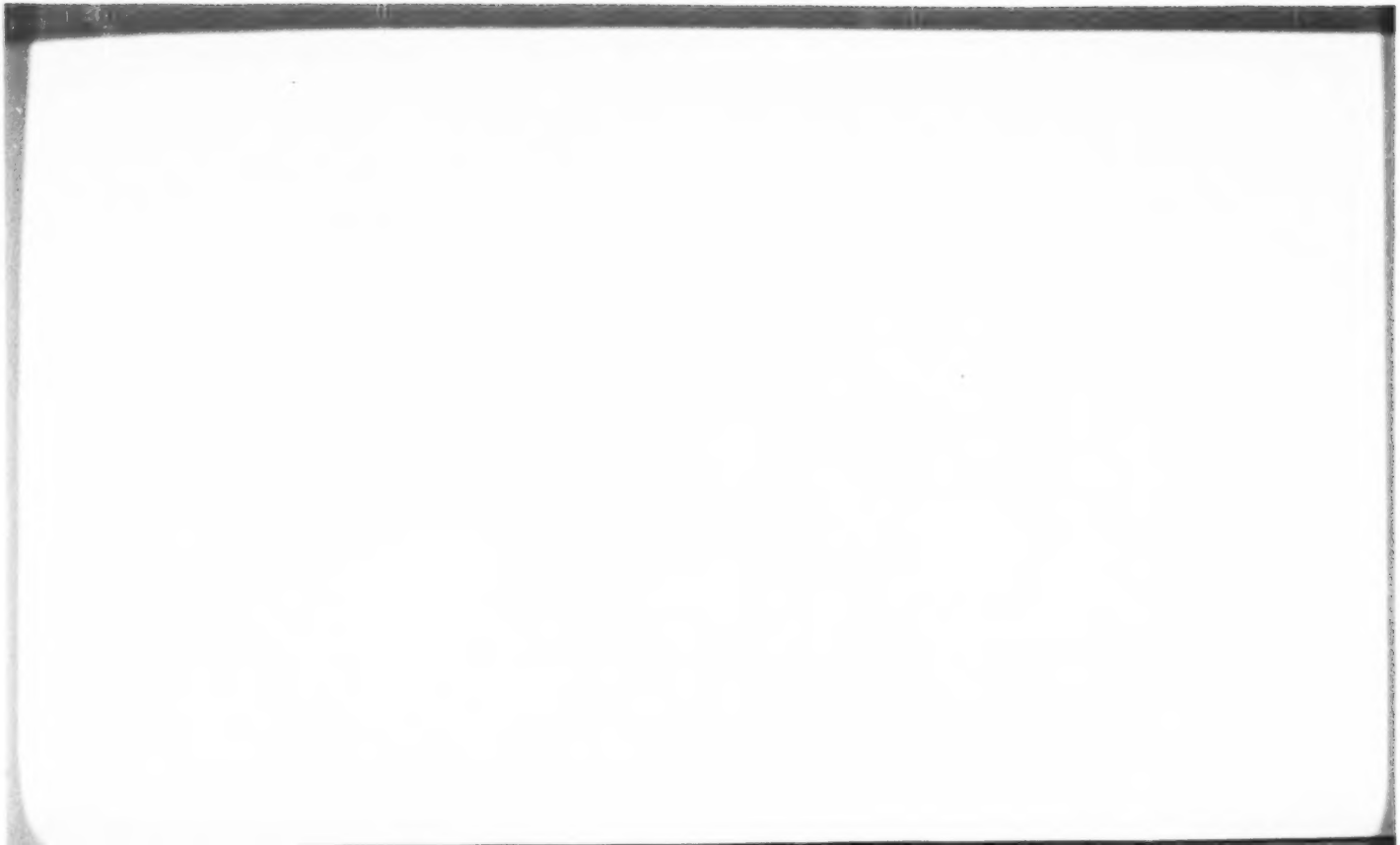
PRESS OF BYRON S. ADAMS WASHINGTON, D. C.



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Aurex Corporation and Walter H. Huth, movants, respectfully move the Court to direct the clerk to recall his notice of the denial of certiorari herein, and to amend that order by granting certiorari; and as grounds for said motion represent:

1. The propriety of this motion is established by *Cahill* v. *New York, New Haven & Hartford Railroad Company,* 351 U.S. 183, 76 S. Ct. 758, 100 L. Ed. 1075 (1956). There this Court, after brief and argument

by the parties, had reversed the Court of Appeals, and subsequently denied a petition for rehearing. Despite its rule that "consecutive petitions for rehearings, and petitions for rehearing that are out of time under this rule, will not be received". (Supreme Court Rule 58(4), Title 28 USCA, Rules), this Court entertained and granted a motion to recall its mandate and to amend its judgment. The finality attaching in the Cahill case to the judgment there amended, after denial of rehearing, would seem greater in degree than attaching to the denial of certiorari herein, where this Court has not passed upon the merits of the issue. Thus the Cahill decision establishes the authority of this Court to grant the relief here sought.

2. This motion invokes the principle stated recently by Mr. Justice Frankfurter, and concurred in by Justices Burton and Harlan, in *opposing* review by this Court, that "if ever the contingency arises when a Court of Appeals challengingly or ignorantly disregards the controlling law as set forth by this Court, *the means for correction here are ample and sure.*" (*Lawlor, et al* v. *National Screen Service Corp.*, U.S. , 1 L. Ed. 2d 540 at 542, 1957, emphasis supplied). The opinion[1] of Judge Schnackenberg in the Court of Appeals in overturning clear findings of fact relative to infringement and equivalence, affirmatively misstates the evidence and record on which that opinion purports to be based; by way of omission, ignores uncontradicted evidence in the record not only warranting but compelling the findings of fact that opinion overturns; and thus flouts the decision of this

[1] (Set forth in full as Appendix II to Petition for Certiorari; and pages 1a through 9a, Appendix, Petition for Rehearing of Order Denying Petition for Writ of Certiorari).

Court in the *Graver Tank & Manufacturing Company, Inc.,* et al v. *Linde Air Products,* 336 U.S. 271, 69 S. Ct. 535, 93 L. Ed. 672; decision adhered to on rehearing; 339 U.S. 605, 70 S. Ct. 854, 94 L. Ed. 1007 (1950), and Rule 52(a) of the Federal Rules of Civil Procedure.

3. The Court of Appeals and the District Court both held valid the discovery patented—namely, that sounds generated in the casing of a microphone—such as caused by friction of the casing with the user's clothing—(which prior to the discovery were molecularly conducted to the microphone and there amplified as static), became inaudible when the microphone was suspended on a medium free from tension or stress. Both courts necessarily ruled that the advance over the prior art was the absence of tension or stress in the microphone mounting. Nonetheless, Judge Schnackenberg, in his opinion, concurred in by Judge Duffy, held the accused device did not infringe the validly patented and broadly claimed discovery, because utilizing an *unstressed* microphone support. Thus paradoxically, Judge Schnackenberg's opinion holds *non* infringement because of user of the very principle patented, and is completely irrational.

4. The Language of the claims involved state the principle discovered without any qualification as to the type of supporting medium of the microphone. (Claims 1, 2, 15 and 16, R. 8, 9) In addition, the patent's issuance followed an interference proceeding in the Patent Office, in which it prevailed without qualification to the broad claim over *unstressed* rubber mountings *because they were, like the silk sheet mounting embodiment of the applicant, unstressed.* (Finding 18, R. 561; R. 540-548; 531, 532.) The opinion of

Judge Schnackenberg for the Court of Appeals omits this significant history of the patent, in reading into the unqualified language of the claims limitations excluding their application to the unstressed rubber mounting of the defendant Beltone. Thus Judge Schnackenberg gave no effect to the prior determination of the Patent Office, which conclusively demonstrates the broad language of the claims was deliberately rather than inadvertently used to apply to the very device he held did not infringe. This Court has "frequently held that it is the claim which measures the grant to the patentee". *Graver Tank & Manufacturing Co.* v. *Linde Air Products,* 336 U.S. 271 at 277, (1949); a fortiori the claims must be given effect when the patent's history shows their literal language to have been consciously and deliberately employed to apply to an accused device.

5. The failure of Judge Schnackenberg's opinion to reflect the true state of the record is shown by the following errors:

Statements in Opinion of Judge Schnackenberg	The Errors Thus Committed
"Defendant's counsel contend that before any of the Cubert activity here in question it was known that microphones should be floating mounted to eliminate extraneous sounds. They point to uncontradicted evidence that springs, sponge rubber rings, felt pads or rings and gum rubber type elements were used for this purpose." (p. 2)	The "uncontradicted evidence" referred to involved springs, sponge rubber supports, felt pads or rings and solid gum rubber type elements, that were *always under applied stress or tension.* (Findings 10, 25, 33 and 34, 35 and 37 (R. pp. 360-364). Moreover, where sponge rubber was used it was not as "rings".

To ignore this distinction in the "uncontradicted" evidence is to ignore the discovery which was patented.

"It is undisputed that prior to the Cubert patent it was known that extraneous sounds in microphones could be eliminated or diminished by a floating mounting." (p. 5)

This is wholly without foundation. It is exactly the opposite which is undisputed, and is the very basis for the patent. (Finding 29 and 33, R. p. 562 and 563).

"Defendant achieved its result by floating a microphone by the use of *conventional cushions*, (p. 5).

• • •

"Whatever may be the extent of the movability of the microphone of either the plaintiffs' or the accused device, the fact is that the microphone in the accused device is permitted to move only because of the *conventional* use of cushions. (p. 5)

The *conventional* use of cushions, was to *stress* them. It is the importance of lack of stress which was the discovery; the lack of stress was the feature of the accused devices which made them infringe. (Finding 10, R p. 560.)

• • •

"Cubert's patent, which teaches the use of a stretched diaphragm, is not infringed by the use of a conventional cushion, found by the district court to be unstressed except for the slight weight of the microphone itself." (p. 6) (Emphasis supplied)

"Cubert placed his emphasis upon the use of a 'stretched' support, and a 'thin flexible sheet' which

This statement ignores the claims, where the word "stretched" does not appear; seizes upon one out of

can 'only vibrate mechanically in the manner of a diaphragm'. Surely this cannot encompass a microphone 'mounted upon unstressed foam rubber', or a microphone' • • • suspended by the foam rubber • • • without any stress upon the mounting member other than the slight weight of the microphone itself." (p. 6)

six different meanings for the word "stretched", and *assumes* that "stretched" in the *specification* means "stretched taut." It overlooks and ignores the alternative meanings of "extended" or "spread" which *do* fit with the patent disclosure.

Thus, the New Century Dictionary (Appleton-Century-Crofts, Inc., 1948) gives the following definition:

" 'Stretch' . . . To draw out or extend (one's self, the body, limbs, wings, etc.) to the full length or extent; lay full length, as in a prostrate position (as, to stretch one's self on the bed for a nap; ... *extend, spread,* or place so as to reach from one point or place to another (as, to stretch a rope across a road; to stretch a curtain over an opening); *also,* to draw tight or taut (as, to stretch the strings of a violin or the membrane forming a drumhead)." (Emphasis supplied).

Judge Schnackenberg's statement, ignores the fact that the whole idea was a lack of stress or tension in the microphone mounting (Finding 33 R. p. 563) and thus distorts and perverts the word "stretched" to defeat the object of the inventor.

Cubert did not emphasize a "stretched" support. *That word appears no where in the four claims involved in this suit*, and only twice in the specification. (Cubert Patent, Column 2, lines 11 and 55). In the latter of these instances it is expressed as part of the phrase "stretched flat," clearly indicating extension rather than stress.

Judge Schnackenberg's misconstruction of "stretched" ignores uncontradicted evidence that the silk sheet embodiment of the invention was extended without tension. Thus, witness Drumm when asked if there was any stress on the silk, testified: "No, there are no stresses, other than merely the stress of the microphone casing itself. There are no stresses" (R 138). There is no contradiction of this testimony anywhere, and the district court's finding must stand. (Finding 33, R. 563)

Moreover, the interference proceeding, in which the Cubert application was the winner, conclusively demonstrated that the silk sheet was not stressed; in the interference the Cubert patent prevailed over *unstressed* rubber mountings because they were, *like the silk sheet, unstressed.* (Finding 18 R. 561).

In this statement and other statements in Judge Schnackenberg's decision the opinion emphasizes Cubert's alleged use of a "diaphragm." Each emphasis also distorts and misconstrues the record. The language by Cubert thus referred to is found in the record (pp. 468, 469) as follows:

"The point is that applicant's silk or other cloth does not *transmit* molecular or other vibrations. It can *only* vibrate *mechanically* in the manner of a diaphragm. That is what gives the microphone freedom of motion within the outside casing." (Emphasis added). Cubert did not, as the Court's opinion implies, state the use of a diaphragm to be essential. He was distinguishing molecular vibration, as transmitted by *mounting-elements* under tension, from mere mechanical vibration, that is, a vibration resulting from energy directly applied to the microphone, rather than molecularly conducted through its mounting; and used visual *mechanical* movement of a *diaphragm* to emphasize the absence of vibration *conducted* from the casing.

6. In *Noble Co.* v. *C. S. Johnson Company,* 241 F. Ed. 469 (CA 7, 1957) and again in its recent decision, *The University of Illinois Foundation* v. *Block Drug Co.,* Appeal # 11,605, decided January 16, 1957; 112 USPQ 204, rendered by the Court of Appeals of the Seventh Circuit Court since its decision in this cause, that Court reasserted certain rules of law governing its review of findings of fact in proceedings brought to enforce patents which rules it abandoned and disregarded in its decision in this cause. In Appeal # 11,605, that Court held that the issues of infringement and equivalence are issues of fact, and followed this Court's construction of Rule 52(a) of the Federal Rules of Civil Procedure, as set forth in *Graver Tank and Manufacturing Company, Inc., et al.* v. *Linde Air Products,* supra, p. 3. Movants herein respectfully ask that they have equality before the law and that those rules of law be applied in their case.

Respectfully submitted,

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